

INTRODUCTION TO THE STUDY OF ECONOMICS

SPLAWN AND BIZZELL

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INTRODUCTION TO THE STUDY OF ECONOMICS

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BY

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PREFACE

Increasing emphasis in our schools is being put upon the social studies. The purpose of these studies is to enable our youth to realize what it means to live in society, to understand how people have lived and do live together, to know how people may live together well, and to develop the capacity to take a proper part as members of society. Each social study makes a distinct contribution toward the accomplishment of this purpose. Geography gives an understanding of earth conditions and natural resources as the material basis of social development; political science gives an understanding of social control by means of law and of the promotion of the general welfare by aid of governmental action; sociology seeks to explain the various forms of causal relations between the activities of individuals as members of groups; history portrays human events and activities as they have actually occurred, emphasizing the continuity and development of human society; economics sets forth the processes by which men get a living.

A large part of human activity is devoted to getting a living. We call these activities economic. Economic activities are carried on largely in group life, and the most individual of such activities are affected by group life. Economics explains the origin of the goods for which men struggle and how these goods are divided among people; economics enables us to understand why we have specialization, interdependence, competition, coöperation, difficulties in adjusting production to the real demands of the people, how money is used in the production and sharing of goods, and how governmental action and social policies may affect the course of production and the

division of goods. Since so much energy is devoted to economic activities, every society must give attention to economic problems. Such problems as taxation, the combination of labor and of capital, the distribution of goods, the tariff, the trust, trade unionism, socialism, and others will compel attention from any society.

In a democracy a large number of people must learn to form intelligent opinions upon economic questions, otherwise democracy may perish. People cannot form sound judgments upon economic issues unless they know the general plan of our economic life and appreciate the existence and character of economic laws as they operate in both domestic and international relations. It is therefore highly important that there be a widespread knowledge of the principles of economics.

For many years instructors in high schools have been giving elementary courses in economics. It has been found that children in the tenth grade or above can follow the reasoning of the economist. The experiences of many teachers in different parts of the country have proved that the elements of economics can be successfully presented to high-school students and are no more difficult than a good many other subjects successfully taught. The textbooks available have been for the most part either too theoretical or too descriptive in content. The problem has been to get a book which would describe business and which would so present some of the fundamental principles that they could be grasped by children in the tenth and eleventh grades. The authors offer this Introduction to the Study of Economics as their effort to solve this problem. It is hoped that those who use this book will find it a helpful preparation for further study in college. It is realized that many who will use it will never attend college. It is believed they will find that an elementary course in economics while in high school will equip them to detect fallacies in the reasoning

of public men and of publicists, to avoid errors, and better to discharge their duties as citizens.

Questions have been placed at the end of each section for the convenience of students and instructors. These questions are in part designed to compel a close reading of the text, to provoke thought and discussion, and to demonstrate the complexity of many economic problems. The bibliography is for the benefit of instructors who wish to do parallel reading themselves or who would like to supplement the text with other material. Since men devote the most of their working hours to the business of getting a living, it is desirable that young people should make a systematic survey of the organizations that men have developed in their efforts to get a living. It is of vital importance that they should understand the social consequences of such efforts. The authors have tried to make their presentation sufficiently clear, that the general reader, who has not had the advantages of high-school training, may find it comprehensible and interesting.

Acknowledgment is here made of the helpfulness of those who read the manuscript or parts of it, particularly of Professors E. T. Miller and A. B. Wolfe of the University of Texas; of Mr. Townes M. Harris, a graduate student in the University of Texas; of Mr. J. H. Wisely, a state supervisor of high schools; and of Miss Maclovio Hill, instructor in economics in the Austin High School, who not only read chapters but tested a part of the manuscript in her class work. Where questions have been taken from other books reference is made by initial letters: "D. & D." is for Day and Davis; "T." for Taylor; "H." for Hayes; "O" for "Outlines by the Faculty in Political Economy at The University of Chicago;" "D" for a book of problems arranged for New England teachers and edited by Professor Davis.

THE AUTHORS

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LOGGING IN OREGON

Man makes the forest serve his need for shelter

INTRODUCTION TO THE STUDY OF ECONOMICS

CHAPTER I

THE WANTS OF MEN

SECTION I. WANTS ARE MANY

In reading your English classics you have come across the often-quoted line "Man wants but little here below, nor wants that little long." After making a list of your own wants, and comparing it with those of other members of the class, do you agree that "man wants but little here below"?

The wants of men are infinite in number and well-nigh countless in variety.

First, wants increase from a great number of causes. In order that we may better appreciate how great in number and how varied in character wants may be, let us briefly notice some of these causes. Wants increase with the development of the individual. This is true first of physical growth. The first want of the newborn infant is warmth. Warmth supplied, a desire for food is manifested. Then there is the rather vague groping after comfort: squirming, fretting, crying, are infantile protests against various forms of discomfort, or instinctive pleas for some simple adjustment of clothing, of covers, of light. As wants are satisfied in certain ways, there develops desire for such satisfactions. A few months bring the desire for forms of food other than milk, for toys, for new clothes.

Again, wants increase with mental growth. In satisfying the primary appetites for warmth, food, and drink men make use of many devices. To keep warm they do not grow coats of fur, as do the animals, but they make coats from skins and fabrics; they do not burrow into the earth nor bed in herds, but build houses which they heat artificially. The need for warmth leads men to want woolen underclothes, overcoats, furs, ear-muffs, gloves, overshoes, comfortable houses, stoves, fireplaces, furnaces, wood, coal, gas. To get these, men are led to forests, to mines, and to the construction of many kinds of factories. To satisfy hunger men do not as a rule feed merely upon such articles of diet as nature furnishes in a locality, but they seek to supply their tables with a great variety of good things. They search the earth, the land, and all the seas for delicacies. The quest for food leads them to design and to use ships, railroads, warehouses, stores without number, credit, telephones, telegraph systems, and hundreds of devices.

Where the animal passively develops tooth or claw to aid in the quest for food, man, without any change in his anatomical structure, actively adapts himself to his environment by making a device, a tool, a machine. Where the animal passively and unconsciously develops fleetness of foot or of wing as a means of defense, man actively and consciously tames a horse, builds an automobile, or a flying-machine. Where the lower animals passively, without thought or effort, grow a shell or a tough hide as a protection, man actively and with thoughtful labor builds a barricade, a fort, or puts on armor. The number of wants which men may develop in connection with the primary wants of warmth, food, and drink are limited only by knowledge of material objects for satisfying these wants and by skill in adapting such materials to their needs. With the increase of knowledge and of skill men's wants multiply.

Second, men have wants due to affection for persons — members of the family or friends.

Third, memory, imagination, reason, powers of judgment not only characterize man but enable him to multiply his wants indefinitely.

Fourth, man's sociability accounts for many wants. He normally lives in society. With the passing of years he becomes a member of many groups. In these associations he finds himself imitating others or trying to excel others. All this greatly increases the number of his wants.

Fifth, there is great diversity of individual tastes. This helps to account for the varieties in styles and makes of goods.

Sixth, we have come to think of an increase of wants as a characteristic of progress. Primitive man had relatively few wants compared with those of modern civilized man. Education is designed to create new and worthy desires. It is the purpose of education to awaken within the student a "divine discontent," to set him to striving for certain ends with all his might.

We may now state as a law that the consuming power of a community is indefinitely great. Moreover, wants are very different in the degrees of their intensity. Take, for example, your list of ten wants, and arrange them according to their importance. You are at once impressed by the fact that your desires for some satisfactions are stronger than for others.

QUESTIONS

1. Make a list of ten things you want.
2. Make a list of wants due to the fact that man has memory, imagination, reason.
3. Make a list of ten different groups or associations of people in your community. What particular wants are stimulated by each group?

4. Make a list of ten things you greatly desire. What have you on your list which would not have been there four years ago? Compare your list with those of other members of the class.

5. How many of your wants seem to be due to a desire to stand well in the estimation of others?

6. Why has a savage fewer wants than a well-to-do resident in a modern city?

SECTION 2. SOME CHARACTERISTICS OF WANTS

Having seen that wants are many and varied, let us now make some further observations. Wants may be classified as physiological and social. Physiological wants can be satisfied for the time by relatively small quantities. Thirst may become torturing, but a small amount of water will quench it, whereas too much water would result in a form of torture as excruciating as intense thirst. Hunger may be ever so gnawing, but a few slices of bread and butter will satisfy it.

The more social a want, ordinarily, the more elastic the limit of its satisfaction. A suit of coarse denim will afford protection to the body, but the society belle lavishes large sums upon a gown, seeking to excel others in the taste shown by the selection and arrangement of materials. One can cross the ocean as a steerage passenger, but to do so in a private yacht advertises one as of more consequence. It would be hard to say how expensive a necklace would have to be before a society woman would say, "Nay, nay; its very worth would torture me."

Wants tend to recur. That is, after a want has been satisfied for the time being, it will after a time reappear and perhaps be as insistent as before. This is especially true of physiological wants. Each morning brings the desire for breakfast, though many breakfasts may have been consumed in the past. This is also true of some social wants.

Wants are complementary. They usually go together, and are not often satisfied separately. Shoes go with hose;

hammers with nails; sugar and cream with coffee; gasoline with automobiles; tables, table linen, plates, knives, forks, spoons, chairs, perhaps music and flowers, with food.

The desire for an immediate satisfaction of a given want is usually stronger than the desire for the same satisfaction at some time in the future. This relative intensity of desire for a thing to be consumed immediately, as compared with the desire for a thing to be consumed in the future, will aid us later to understand why interest is paid. We may state the principle: The utility of goods available for consumption in the future is less to the normal consumer than the utility of goods available for consumption in the present (the goods being of like kind and quality) by an amount which varies directly with the degree of futurity.

Moreover, wants are very different in the degrees of their intensity. Take, for example, your list of ten wants and arrange them according to their importance. You are at once impressed by the fact that your desires for some satisfactions are stronger than for others. Wants compete with one another. Often the satisfaction of one want must be at the expense of letting others go unsatisfied. Wants may even be interchangeable. The desire for a new car may displace the desire for a new house; the desire for immediate marriage and a home may take the place of a desire for a college course.

This means that one set of wants may be substituted for another. This has been regarded as a source of protection to the consumer. If the price of a satisfaction becomes too dear, the consumer may shift to some other kind of satisfaction. This is especially true of the satisfaction of social wants; for example, if hunting becomes too expensive, one may turn to golf or tennis for recreation.

Wants may be regarded as good and bad, social and anti-social. It is easy to develop physiological wants, the satisfaction of which would tend to impair or destroy health. The

desire for narcotics, stimulants, vicious amusements, may be mentioned as illustrative of what is harmful competing with what is wholesome and healthful.

The fact that wants compete with one another and may be replaced by one another accounts in part for advertising campaigns. Wants are said to be stimulated and educated if not actually created by advertising.

QUESTIONS

1. Name some wants which may be satisfied.
2. Name some physiological wants; some social wants.
3. Name some things which you would rather have now than next year. How much more should you be willing to pay for them to be delivered immediately than to be delivered next year?
4. Mention cases which you have observed of the replacement of wants by other wants.
5. Look through the advertisements of a current periodical and make a list of wants which are being stimulated by advertising. Classify these according to helpfulness and harmfulness (1) to individuals; (2) to society.

SECTION 3. GOODS

Wants are satisfied by goods. For every want there is a corresponding good. The capacity of a good for satisfying wants is known as utility. Anything that satisfies a want is a good as the word "good" is used in economics. The power of a good to satisfy wants is utility.

There are several kinds of utility. (1) A thing may have utility as it stands. Corn in the field is an example. Its utility is called elementary and is derived from some prospective use. (2) The corn may be harvested, shelled, and ground into meal. Its utility has been increased, and this addition to its utility is called form utility. (3) The meal may be carried from the country to the city, or from the

corn belt to a region where corn does not grow. Its utility has been increased still further, and this addition is known as place utility. (4) Then the meal may be kept in a warehouse until it is needed most, and the utility thus added is called time utility.

A given want may be satisfied. A man's desire for bread, for instance, is for a limited portion at a given time. If no rest period be allowed, a single want may, for the time, be satisfied. We have the principle: The intensity of the desire for additional units of any particular commodity decreases as successive portions are consumed.

Goods are of two kinds: free and scarce. Free goods are those which exist in limitless quantities and may be had as needed. Air is an example of a free good. If all goods were free, there would be no occasion for the study of economics. While nature provides some goods in abundance, others are exceedingly scarce and may be had only with the greatest effort. Even the goods which are most plentiful require some effort to gather or to distribute. Water is often spoken of as a free good, yet the people in a town or city must go to the expense of laying mains and pipes, and of installing plumbing in the houses in order that water may be had when desired. Light is regarded as a free good, but man does not always go to bed with the sun: he goes to much expense in lighting his house and the streets at night. The heat of the sun is free. Nature pours it upon some portions of the earth in excessive quantities, so far as man's comfort is concerned, and withholds it from other portions of the earth so that whole regions are icebound the year through. In the temperate zones the sun beats upon us with torrid fierceness during the summer months and leaves us to shiver and freeze for want of his genial warmth in the winter. Ordinarily it is too hot or too cold for man's unprotected body. Shelter and clothing are scarce. We have seen that the wants of men are without

number. The means of satisfying most of these wants are scarce.

We have classified goods (the means of satisfying wants) as free and scarce. Goods which are scarce we also call economic goods. Economic goods may be subdivided into two classes: material and nonmaterial. Material economic goods we call wealth; nonmaterial economic goods we call services. Examples of wealth (material economic goods) are cattle, motor trucks, books, bread, jewels, or any material objects which are scarce and are desired by men; examples of services (nonmaterial economic goods) are the work of the teacher, the preacher, the physician, the opera singer, the entertainer, the lawyer, the engineer, the cook, the waiter, and so on through the list of those who give of their energy and personal ability to meet the needs of others.

Ways of getting a living (that is, satisfying wants) have been classified as follows: ¹

I. Nonproductive

1. Destructive

- a.* War
- b.* Piracy
- c.* Plunder
- d.* Swindling
- e.* Counterfeiting
- f.* Adulteration of goods
- g.* Monopolizing

2. Neutral

- a.* Marrying wealth
- b.* Inheriting wealth
- c.* Benefiting through a rise
in land values

II. Productive

1. Primary industries

- a.* Farming

b. Mining

c. Hunting

d. Fishing

e. Lumbering

2. Secondary industries

a. Manufacturing

b. Transporting

c. Storing

d. Merchandising

3. Personal or professional service

a. Healing

b. Teaching

c. Inspiring

d. Governing

e. Amusing

f. Domestic service, etc.

¹ See T. N. Carver, *Principles of Rural Economics*, p. xx.

QUESTIONS

1. Define economic goods, wealth, services, utility.
2. State whether the following are to be classed as economic goods: a watermelon, a hat, a stickpin, a pencil, a sermon, a pie, the work of a scrubwoman, air, water, ice. Give reasons in each case. Give three other examples of economic goods; two of free goods.
3. "The ways of getting a living may be classified as prosocial, nonsocial, and antisocial." Explain the meaning of this statement. Give illustrations.
4. Illustrate each kind of utility. Mention three articles in which time utility is most important.

SECTION 4. THE STRUGGLE FOR GOODS

The scarcity of goods gives rise to struggles for their possession. These struggles have had far-reaching consequences and may be discussed under three heads.

First, to get satisfactions for their wants men must struggle first with nature. This means that effort is required to locate natural resources, and that more effort is required to work over and put these resources into forms and combinations suited to the needs of man. Petroleum exists in large quantities in a few localities, but it is often hundreds of feet below the earth's surface. It requires much pains and labor to locate it and to provide for bringing it to the surface. It must then be treated or refined before it will serve many purposes. Again, it must be transported, usually for long distances, so as to be available to those who want it. Men want bread. They can best get it from wheat or corn, but these will not grow and produce grain of the desired quality and in sufficient quantity unless the ground is specially prepared and unless all weeds or other plants are kept out of the way.

Nature is pitiless. The cold wind is not tempered to the shorn lamb. Cruel storms beat upon the face of the earth.

Man can be sheltered from them only after much labor. To keep warm he must cut down forests for his fires and exploit the mines to feed his furnaces. The progress of man is marked by his conquest over nature. The primitive man sleeping in trees and caves, with only sticks and stones for tools and weapons, trembled for fear at the scream of the tiger or the roar of the lion. On the ground he was no match for the beasts of prey. As he searched for berries and roots to stay his hunger, he was in peril from the wild boar. Herds of horses might trample him to death if he crossed a plain. Only by his wits could he survive. Through centuries of struggle men have driven out the beasts of prey and have subdued and domesticated the hog, the cow, the horse, and other animals. Men have quit living upon wild fruits and grain and have learned to cultivate and develop many varieties of vegetation. The conquest of nature goes on. Man continues to conquer. By his ingenuity in adapting the materials supplied by nature to his needs, he is able to increase the number of his satisfactions.

Second, the scarcity of goods leads to a struggle between men for their possession. Competition becomes keen as wants increase. Wars grow out of the struggle of organized nations for the possession of relatively scarce natural resources. Then there is a contest and eager striving between members of each individual group within a nation, the prize being certain coveted satisfactions. There are not enough goods to go around. The wants of all cannot be satisfied. There is a struggle to avoid the failure to get what is desired.

Third, the scarcity of goods brings about a struggle within the individual man, a conflict of interests within the individual himself. If a man have one satisfaction, he must often forego others. A college course may be chosen at the expense of a trip abroad; to get a new book may mean giving up several visits to the motion picture; to have a home will

often mean the sacrifice of many pleasures, such as trips, theater tickets, even the clothes one would like to have. Choice is necessary because goods are not plentiful enough to meet the wants of all.

QUESTIONS

1. Name some wars caused by scarcity of means of subsistence.
2. Should we have wage problems if goods were not scarce?
3. Give instances of self-denial of some goods in order to obtain a chosen satisfaction.
4. "Alone and lost in the desert, his last morsel of food and his last drop of water gone, he would cheerfully have given his gold, his yachts, his palaces, all his wealth, for the meager fare of the day laborer. At last the illusions which he shared with civilized society were fully dispelled. The unutterable folly of the comparative estimates which men commonly put on things became manifest. At last, on the verge of oblivion, he saw things in their true, their real, proportions." Criticize.

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CHAPTER II

WHAT IS ECONOMICS

SECTION I. ECONOMICS DEFINED

We have seen that man is a bundle of wants, and that it is with difficulty that satisfactions may be had for most of these wants. When we speak of getting a living we mean the obtaining of satisfactions for our wants.

We are now prepared to define economics. Economics is the study of the ways of getting a living. The economist gives most attention to those ways of getting a living to which approval is given by society. Burglary, for example, is one way of getting a living. Society does not approve this way, for the very good reason that if everyone sought a living by taking what belonged to others, all available goods would soon be consumed and the race would perish. Burglary, not being approved, does not require the attention of the economist.

The term "business," as used in this book, includes the approved ways of getting a living. When we say a man is in business we mean that he is getting a living in some manner which has the approval of society. When society disapproves that which has been lawful, the person who persists in trying to get a living by that means is regarded as in rebellion against society. Disapproval may be expressed by society as organized in the State. For example, until recently it was lawful to conduct a saloon. Society through

the State has expressed its disapproval of this way of getting a living. Law-abiding citizens closed their saloons, because to operate a saloon was no longer a business, an approved way of getting a living. In other cases the disapproval of society may be expressed in the form of public opinion. Men may give up ways of getting a living, which although not outlawed by the State, are condemned by public opinion.

QUESTIONS

1. Define economics.
2. Make a list of approved ways of getting a living.
3. Make a list of ways of getting a living which are not approved.
4. Mention some ways of getting a living which were formerly lawful but now unlawful.
5. Do you think of any approved ways of getting satisfactions for our wants which may in the future be disapproved?
6. Is the economist concerned with theft? with piracy? with "bootlegging" whisky? with gambling? Give reasons.
7. Is conducting a pool hall a business?

SECTION 2. "BUSINESS"

To get satisfactions for their wants men go into business: the business of farming, stock-raising, banking, merchandising, mining, manufacturing, teaching, inspiring, healing, entertaining, any one of the many ways of getting a living which society has approved. The word "business" is very familiar. Our familiarity with the meaning of the word is not such as the glibness with which we use it would indicate. We are not inclined to push back of the surface meaning of the word to an investigation of its content. We can perhaps best appreciate the importance of the term by following briefly a simple business transaction.

A housewife wanting a loaf of bread calls at a bakery and exchanges ten cents for the loaf. What could be more simple?

Most of us rarely look beyond the mere exchange of a small coin for a loaf, yet how much is involved in this familiar transaction. Whence came the loaf? Materials had to be mixed by a baker. Before the baker could have the necessary ingredients they had to be purchased and assembled. Flour, fats, baking-powders, and the like were obtained from grocers, who, in turn, had them from jobbers. The wholesale grocer got the flour from a milling-company, the fats from a packing-company. The packing-company prepared the fats as a by-product of its major business of packing meat. The miller got wheat to grind from a broker. This broker perhaps had purchased it from another broker. The ownership of the wheat could be traced through a chain of middlemen reaching from the miller to the local wheat-buyer, who originally bought the grain from a farmer. The purchase from the farmer may have been made in Texas, Oklahoma, Kansas, Canada, Argentina, Australia, or Russia. The organization for gathering up the wheat from the farmer into immense elevators and redistributing it to the millers is world-wide.

The farmer had to have the assistance of trains, plows, drills, reapers, thrashers, wagons, in order to prepare the soil and to sow, harvest, and carry the wheat to the railroad. This presupposes a live-stock industry from which teams can be drawn, as well as factories to supply the necessary machinery. But between each manufacturer and the farmer is a chain of middlemen functioning much as the middleman standing between the farmer and the miller. Behind each factory stand other series of middlemen connecting the manufacturer with the sources of his materials. Extracting the raw materials for the manufacturer's use calls for great organizations, such as the lumber business and the mining industry.

The raw materials have to be transported from the mine to the factories, and the farm machinery from the various factories to the farmer. The wheat must be gathered up

along thousands of miles of railways and transported to the mills; the flour must be carried from the mills to consumers in all parts of the earth. All this calls for a world system of transportation, including county and state roads, railways, canals, coastwise and ocean steamships.

Again, a credit system is necessary to enable the baker to buy flour, the miller to purchase wheat, the farmer to buy seed and machinery, the manufacturer of farm machinery to obtain materials. This credit system too is world-wide in its ramifications and is organized through banks and clearing-house associations.

Then why did the baker accept a dime for the bread? Why did he not charge more or less? What is a dime? How does money assist in getting our wants satisfied? Why are certain metals used as the standard money? The simple purchase of a loaf of bread raises all these questions. It is for economics to answer them.

Behind the purchase of a loaf of bread is a whole series of complex social arrangements: arrangements for manufacturing, for trading, for assembling and distributing, for transporting, for supplying needed credit. These social arrangements are world-wide in their extent. Each is complicated and hard to describe, yet the existence and the functioning of all are necessary in order that the housewife may get a loaf of bread when she wants it. Economics undertakes to explain these social arrangements which men have developed as aids in getting satisfaction for their wants.

QUESTIONS

1. Trace one item on the menu for breakfast this morning to its ultimate sources.
2. What social arrangements do you find to have been used in supplying this article of food?

SECTION 3. THEORY

Every one comes in contact with the subject matter of economics. Everyone makes some study and has some experience with business. But what one gets from experience does not always enable one to explain how one possesses judgment and why one acts as one does. The point of view of experience is that of the individual; the point of view of economic theory is that of society.

The method of economics is "to reflect; to generalize on the basis of the known facts; in the light of generalization to collect further facts with which to test it; and by this process of testing, and by comparisons with other generalizations reached by the same process, to reach a generalization which exactly fits the facts."¹ Economic theory is the body of generalizations reached in this way. Facts do not explain themselves. Before facts will tell us anything we have to arrange them, and the arrangement of facts is a theory. We cannot avoid making theories.

We are compelled to arrange and interpret facts. The danger is that we shall not get enough facts; that we shall generalize upon inadequate evidence; that we shall jump at conclusions from one or a few facts; and that we shall take a generalization so reached to explain all other facts. As students of economics "we are seeking principles in order that we may act on them, because the ultimate motive of economic study is not curiosity, but the necessity to act, and rational action must be based on some principle."²

As we approach the study of economics let us remember that we shall have to study activities in which we ourselves are interested participants. We shall therefore have to guard

¹ H. Clay, *Economics for the General Reader*, p. 10. The Macmillan Company, 1917.

² *Ibid.* p. 12.

against our own prejudices. Economics is an explanation of the facts of business, of the social arrangements men use in satisfying their wants. When we have explained these arrangements we have not justified them. To explain is not to advocate.

QUESTIONS

1. "When we have explained we have not justified." Illustrate.
2. Professor Clay says that "some study of economics is at once a practical necessity and a moral obligation." Explain each of these points. Illustrate.
3. "This is all right in theory, but it won't work in practice." Criticize this statement.

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CHAPTER III

THE GIFTS OF NATURE

SECTION I. IMPORTANT NATURAL AIDS TO MAN

In seeking satisfaction for their wants men make use of natural resources, of their own energy and powers, and of devices which they have contrived for their assistance. The gifts of nature, the labor of men, material economic goods, are all used in producing almost every satisfaction for which men seek. These are discussed by economists in the study of how goods are produced, under the headings Land, Labor, and Capital. Land, labor, and capital, together with management, are called the factors of production. Instead of the word "land" we will in this chapter use the phrase "gifts of nature." Nature yields up gratuitously a few satisfactions, but very few. Most goods are scarce. Economic goods are produced through the organization of land, labor, and capital.

Land may be defined as the earth's surface, together with the space below it bounded by lines which meet at the center of the globe, and the space above it bounded by lines which reach indefinitely upwards. Land embraces both the space within these lines and the materials which occupy the space.¹ The word "land" as used by the economist means the gifts of nature. Some writers prefer the phrase "gifts of nature" to the word "land."

The earth was what man had to start with in his quest for satisfactions. To the resources of nature he has had ever

¹ Robinson, *Elementary Law*, p. 51.



WATER AS A SOURCE OF POWER

Water is the only important source of power utilized by man of which nature renews the supply.

to turn in multiplying satisfactions for his developing wants.

The total area of the earth's surface is about two hundred million square miles. The earth's surface consists of dry land and water. The dry land is less than three tenths of the whole (about 29 per cent), and the water covers more than seven tenths of the whole (about 71 per cent).¹ A circle with its center in the west of France would divide the earth into two hemispheres, one with equal parts of land and water, and the other consisting chiefly of water. The land varies in altitude from sea level to about 29,000 feet above sea level. The ocean varies in depth from the shore line to about 31,500 feet. The land averages about 2300 feet above sea level. The average depth of the ocean is about 11,500 feet. If the dry land were thrown into the sea, and the ocean floor leveled, the earth would be covered by water to a depth of about 10,000 feet.

The top layer of the earth's crust consists of loose soil. Beneath this is the solid bedrock. What is below the rock we do not know. The atmosphere, which swathes the earth's surface, is about two hundred miles thick.

This globe, the earth, which geographers and geologists describe for us, has much interest for the economist inquiring how man does and may satisfy his wants. The earth furnishes man physical support, and room for his movements and activities. He can stand upon the dry land. It supports his dwellings, his storehouses, his vehicles; it supplies aids in transportation, natural highways such as rivers, lakes, and seas. Then there are materials from which he may construct highways and conveyances. The minerals deposited in many parts of the earth are used by modern men in so many ways, as the bases of so many industries, that mining has come to be one of the most important of human activities. Men have learned too to utilize the animal life of the world.

¹ Herbertson, *The Clarendon Geography*, Vol. I, p. 45.

Trappers find their way into mountains and to the arctic regions in pursuit of fur-bearing animals; deep-sea fishermen make long voyages; hunters run down birds and beasts; many animals, especially the grass-eating ones, have been domesticated, as the horse, the cow, the sheep, the hog, the camel, the llama, the elephant. From the wealth of vegetation growing out of the earth, men have learned to select that which best suits their purposes. Trees of many kinds are used for lumber, for cabinet woods, and the like. War is made upon the vegetation which does not lend itself readily to the satisfaction of human wants. The ground is broken up and specially prepared and competing plants are jealously weeded out, so that fields of grain or of fibers may prosper, that gardens may bloom and orchards ripen. One of the most important natural resources is the soil. Without the germinating powers of the soil we should have to go without many satisfactions which we regard as necessities.

Climate too is an important factor in determining the nature and quantity of the satisfactions man may obtain. Climate is the result of three variables: (1) temperature, (2) atmospheric pressure, (3) rainfall. Over these man has very little control. The combination of these variables has a profound influence upon human activity and progress. The high temperature of the tropics seems to enervate the race. The low temperature of the Far North leaves great stretches of the earth's surface icebound, limits the means of subsistence, and discourages human endeavor. The most favorable climate is found in the temperate zones, where temperature, atmospheric pressure, and rainfall are most favorably combined to stimulate human progress.

The earth furnishes man (1) with extension of its surface, upon which he may move and receive air, heat, and light. This extension is measured in terms of distance, and distance has much to do in determining man's relations to his fellows.

(2) The earth is a great warehouse of materials upon which man may draw in satisfying his wants. (3) The earth is a great reservoir of power. Animals, wind, water, steam, and electricity are thought of in this connection. "It would occupy too much space to elaborate in the most elementary manner the methods in which domestic animals, wind, fire, water, elasticity of solids, elasticity of gases, explosives, chemical action, magnetism, and electricity have enrolled themselves in the service of mankind."¹ These sources furnish power to do work that otherwise would have to be done by hand if done at all.

One of the most important gifts of nature is the soil. Its fertility depends upon mechanical and chemical qualities. If the soil be too loose or too tight, crops will not do well; if it does not have the necessary chemical qualities, plants will not thrive. Nature has supplied much soil of the proper mechanical and chemical composition. Men have learned how to modify the soil and to increase its fertility.

QUESTIONS

1. Name the factors of production.
2. Define land.
3. What is the soil? To what is the fertility of the soil due? Is fertile soil the most important gift of nature?
4. Name several gifts of nature without which man would perish.
5. Why has Iceland continued prosperous?

SECTION 2. SOME OF THE NATURAL RESOURCES OF OUR OWN COUNTRY

The total area of the continental United States is 2,972,584 square miles. The people of this country have 1,920,000,000 acres of land. Much of this is unsuited to farming. Less

¹ O. T. Mason, *American Anthropologist*, Vol. VII, p. 138.

than half is included in farms, and less than half of that listed as farming-land is being cultivated. This area is divided into many parcels. Most of the land in the United States is privately owned. The holdings vary in size from less than an acre to immense ranches, such as one of 3,000,000 acres in Texas. More than 12,000,000 people were reported in 1910 as employed upon the land in the United States.

Land may be classified as urban, agricultural, grazing, forest, mineral, and waste. Urban land is utilized as space for streets, parks, playgrounds, public buildings, factories, stores, office buildings, and dwelling houses; agricultural and grazing lands supply us with foodstuffs and raw materials. In the use of urban land location and quantity are of first importance; in the use of agricultural and grazing lands quality and quantity are of fundamental importance.

The economical utilization of urban land is becoming an increasingly important problem with the growth of our towns and cities. The village resident is usually well supplied with land that is reasonably well utilized for house, garden, and lawn. As villages grow into towns, and towns into cities, the business sections crowd upon the location of residences and tend either to decrease the available space for lawns and gardens or to absorb the entire space for business or commercial purposes. Utilization for essentially residential and commercial purposes becomes increasingly necessary. The increasing importance of location and space results in higher rents and greater land values. Gradually individual houses give way to apartment houses, and modest commercial buildings surrender their space to skyscrapers. The restricted business sections, like that of lower Manhattan in New York City or the "Loop" district of Chicago, have been said to represent the highest utilization of land that has been attained.

The economical utilization of agricultural lands presents quite a different situation from that of urban land. Increasing



DOWN TOWN, NEW YORK CITY

This represents one of the most economical utilisations of urban land that have been attained

utilization of urban lands results from increasing rents and rising prices. "Rising prices of farm lands," on the other hand, "only show that farm land is becoming more desirable as compared to money. But land is something which grows real, material crops to satisfy hunger. A bushel of wheat goes no further when it is worth a dollar than when it sells for fifty cents. In measuring the benefits of agricultural land we must, therefore, consider not its value but its area and fertility."¹ But utilization of agricultural land is greatly influenced by prevailing prices and acreage yields of farm products.

The utilization of agricultural lands is influenced by the average acreage of farm lands per person. Man power per unit of land under cultivation bears a direct relationship to utilization of land for productive purposes. The following table bears directly on this point.

LAND IN FARMS IN THE UNITED STATES²

CENSUS YEAR	TOTAL ACREAGE	ACREAGE OF FARM LAND PER PERSON	
		For Persons living on Farms	For all persons in the United States
1850	293,560,614	31.17	12.66
1860	407,212,538	32.13	12.95
1870	407,735,041	26.43	10.58
1880	536,081,835	24.31	10.69
1890	623,218,619	25.28	9.90
1900	838,591,774	28.11	11.03
1910	878,798,325	27.63	9.55
1920	955,883,715	29.65	9.04

This table shows that, contrary to popular belief, the farm population has remained remarkably constant. While there has been a decline in the acreage of farm land per person

¹ King, *The Wealth and Income of the People of the United States* (1917), chap. iii, p. 22.

² *Ibid.* chap. iii, p. 23.

based on the total population, this decline has not been rapid or uniform. On the other hand, the average number of acres of farm land per person has shown an increase from 1880 to 1920. This increase from decade to decade has been surprisingly small. This factor alone, therefore, has not greatly influenced the efficiency of production.

The economics of land utilization is influenced by the tenure and size of farms. These two factors are related. The economic condition that determines the size of farms is an important factor in determining the tenure of farms. Tenant farms, for example, tend to predominate where the average acreage per farm is large and the methods of cultivation are relatively simple. The plantation system in the South, where cotton-farming predominates, is an illustration of this fact.

The economic utilization of agricultural land, generally speaking, is less efficient under a system of tenantry than where the land is cultivated by the owner. It is also a general characteristic that the efficiency of cultivation varies with different types of tenantry. For example, the "cropper" is generally regarded as a less efficient producer than a cash-tenant. This situation cannot be said to exist in all countries. The French farm-tenants as a class are about as prosperous as the owners. Many English farm-tenants are efficient producers. But conditions of tenant-farming in France and England are quite different from those in this country. A system of long leases and the protection of property rights of the tenants in the improvements made on the farm have helped to sustain efficiency of production in England, but in this country little has been done to safeguard the rights of the tenant-farmer, and as a result he has not been interested in maintaining the soil fertility of the land he cultivates or in improving the instruments of production on the farm.

It stands to reason that, within certain limits, intensive cultivation results in greater efficiency of production than



EFFICIENT USE OF FARM LAND

Intensive cultivation has increased the productivity of this land. Small fruits between the trees bring the farmer an income while the orchard is growing. This farmer is not dependent on the market for a single product

extensive cultivation. Assuming that this is generally correct, some idea of the economics of production may be obtained from the statistics on the size of farms in the United States:

The 6,448,343 farms in the United States on January 1, 1920, as reported at the Fourteenth Census, were distributed among the groups of various sizes as follows: under 20 acres, 796,535; 20 to 49 acres, 1,503,732; 50 to 99 acres, 1,474,745; 100 to 174 acres, 1,449,630; 175 to 499 acres, 1,006,477; 500 to 999 acres, 149,819; and 1000 acres and over, 67,387.

More than 45 per cent of the farms in the United States are between 50 and 174 acres in size. Farms of 175 acres and over may be termed large farms. There were 530,800 farms of 175 to 259 acres; 475,677 farms of 260 to 499 acres; 149,819 farms of 500 to 999 acres; and 67,405 farms of 1000 acres and over. The states having the largest number of farms of 500 acres and over in 1920 were Texas, where there were 23,976 such farms, and North Dakota, with 22,386. The wide range in the size of farms is illustrated by the following table.

FARMS IN THE UNITED STATES IN 1910 CLASSIFIED BY NUMBER OF ACRES CONTAINED

	NUMBER	PERCENTAGE
Under 3 acres	18,033	0.3
3 to 9 acres	317,010	5.0
10 to 19 acres	504,123	7.9
20 to 49 acres	1,414,376	22.2
50 to 99 acres	1,438,069	22.6
100 to 174 acres	1,516,286	23.8
175 to 259 acres	534,191	8.4
260 to 499 acres	443,984	7.0
500 to 999 acres	125,295	2.0
1000 acres and over	50,135	0.8
Total farms	6,361,502	100.0

On the land we grow many crops. Each year American farmers sow from 40,000,000 to 50,000,000 acres in wheat. The annual wheat harvest averages about fourteen bushels per acre, making about one fifth of the world's wheat crop. Americans plant about 100,000,000 acres in corn and get an average yield of about twenty-five bushels per acre. They plant approximately 30,000,000 acres in cotton, from which they average about 12,000,000 bales. The yield per acre of these crops can be greatly increased by more intensive and better methods of farming. In Germany and in England the farm gets twice as much wheat from an acre as is produced in the United States.

The area of cultivated land may possibly be doubled,¹ much land may be plowed which is already listed as farm land but is not being tilled, about 75,000,000 acres of swamp land may be reclaimed, perhaps 40,000,000 acres of desert land may be irrigated, and millions of acres now covered by brush and woods may be cleared. However, the profitability of working such land is yet to be demonstrated. Some are skeptical of the possibilities of such land.

The original forests of the United States covered not less than 850,000,000 acres. The area now covered by our forests is about 550,000,000 acres.¹ It is estimated that in our forests about 200,000,000 acres are mature, the annual growth being offset by the annual decay; about 250,000,000 acres have been partially cut over and are being restocked naturally with enough young growth to produce usable timber; and about 100,000,000 acres have been cut over or burned over, upon which the young growth is too scanty to promise a merchantable timber.

"Forests not only grow timber, but they hold the soil and they conserve the streams. They abate the wind and give protection from excessive heat and cold. Woodlands make for the fiber, health, and happiness of the citizen and the

¹ See Report of National Conservation Commission, 1909.

nation.”¹ There is much waste in handling our forests. About 50,000,000 acres of timber are burned over yearly. One fourth of the standing timber is lost in logging. There is much damage done to standing timber from insects. Conservation of timber and reforestation of many acres are required if we are to make the best use of nature’s aids in supplying our needs.

Water is essential to the pursuit of satisfactions of wants. We get our supply of fresh water from rainfall and snow. Our mean annual rainfall is about 30 inches. There falls in rain upon our country each year a quantity of water equal to about ten times the amount that passes through the Mississippi River. About half of this water is evaporated, about one third finds its way back to the sea, and about one sixth is either consumed or absorbed.

Of the water flowing to the sea less than 1 per cent is taken for the use of our towns and cities, less than 2 per cent is diverted to irrigated land, about 5 per cent is used for navigation, and perhaps less than 5 per cent is utilized to furnish power. There are 287 navigable streams in the United States. These may be navigated for a total distance of about 26,000 miles. Engineers estimate that an additional 25,000 miles could be added to our navigable waterways by improving and dredging streams. During the past hundred years our countrymen have constructed many canals to supplement the natural waterways. Some 45 of these are still in use, with a total extent of 2180 miles.

Water, like other natural resources, is limited in quantity. Unlike iron and oil, when once used it is not gone forever. Its supply is perpetual. Its quantity cannot be increased by man’s ingenuity, though the given supply may be better utilized. And here is a serious problem for our people: the better utilization of our water supply. Water is poured by

¹ See Report of National Conservation Commission, 1909.

nature upon the earth's surface in lavish quantities at certain periods of the year; then in many sections there are weeks when there is no rainfall. If the water could be impounded when it rains, and be used as needed during the dry weeks or months, the productiveness of large areas would be tremendously increased. Again, there is not only the loss of much of the water from communities which need to retain it, but the accumulation of flood waters in the lowlands causes great waste through the overflow of crops, the destruction of live stock, of houses and other improvements, and sometimes even of human life.

Minerals differ from plant and animal products. Minerals may be said to be typical natural resources. Plants and animals may be moved from one country to another or from one part of the country to another, and be adapted to a new environment and improved in quality from year to year. But minerals are as they were originally deposited. They are not affected by climatic conditions. When a portion of a deposit is removed, it is gone forever. There is no way of restoring minerals to exhausted mines.

Minerals may be classified as metallic and nonmetallic. Among the metallic are gold, silver, copper, lead, zinc, aluminum, and iron; the most important of the nonmetallic minerals are coal, petroleum, and natural gas. Before the outbreak of the World War the annual mineral production of the United States had exceeded \$2,000,000,000. But the money value does not indicate the importance of our mineral resources. Without them we should be unable to supply many satisfactions which we most enjoy. In 1907 mineral products contributed almost two thirds of the freight traffic of the country.

During the past hundred years coal has come to be extensively used. There are deposits of hard, or anthracite, coal in Pennsylvania covering an area of almost five hundred square miles. This coal is widely used on the Atlantic coast

for domestic purposes. Soft coal too is chiefly mined in Pennsylvania, but it is found in other states. Coal fields have been divided into six provinces :

1. The Eastern Province, extending through western Pennsylvania into Ohio, Virginia, West Virginia, Kentucky, Tennessee, Georgia, Alabama, and North Carolina.

2. The Interior Province, reaching into Michigan, Illinois, Indiana, western Kentucky, Iowa, Kansas, Missouri, Oklahoma, Arkansas, and Texas.

3. The Gulf Province, including the lignite areas of Alabama, Mississippi, Louisiana, Arkansas, and Texas.

4. The Northern Great Plains Province, containing the sub-bituminous areas of North Dakota, South Dakota, eastern Montana, and northwestern Wyoming.

5. The Rocky Mountain Province, which contains the soft-coal deposits of western Montana, western Wyoming, Colorado, Utah, and New Mexico.

6. The Pacific Coast Province, which includes the coal lands of Washington, Oregon, and California.

Up to and including 1845, 27,700,000 tons of coal had been mined in the United States. The rapid development of our coal production may be seen from the output for the following years :

1846		5,000,000 tons
1850		7,000,000 tons
1875		52,000,000 tons
1900		270,000,000 tons
1919		535,063,000 tons

Up to and including 1914, 2,537,000,000 tons had been extracted.

This is estimated to be less than 1 per cent of the original supply, yet it is said that at the present increasing rate of production this supply will be so depleted as to approach exhaustion before the middle of the next century.¹

¹ Report of National Conservation Commission, 1909.

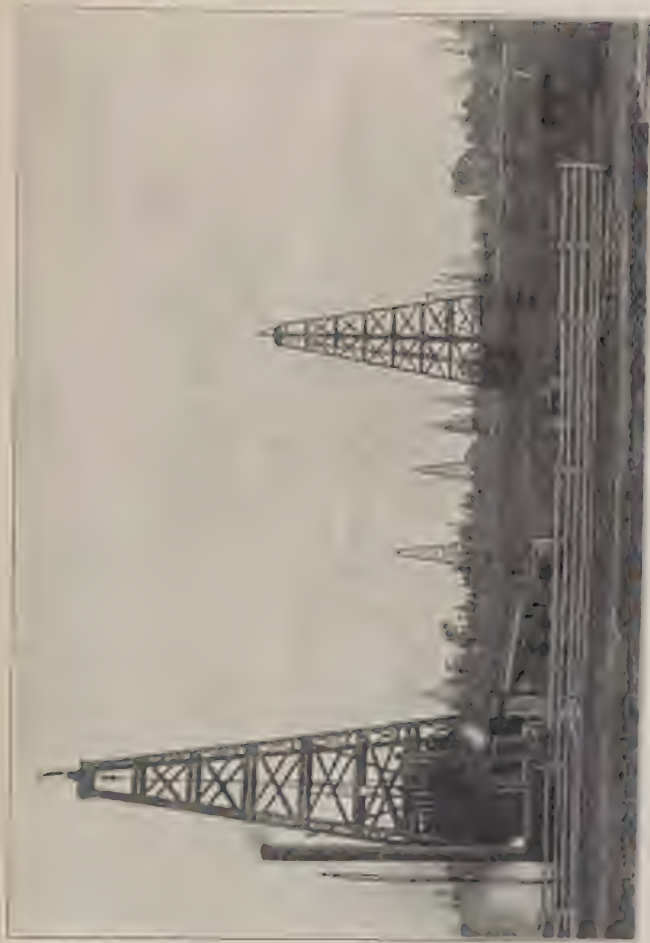
Petroleum has come to be indispensable with the use of combustion engines in tractors, automobiles, and the like. Oil is extensively used as fuel. Our known supply of oil is estimated at about fifteen billion barrels. The production of oil is being rushed; fields are being rapidly developed; in the hurry there is a shameful amount of waste. Just how soon the supply will be used up no one can tell definitely.

Natural gas is the most perfect fuel known. It is to be found in nearly half of the states of our Union. Its use, too, is recent. During the past few years we have been very prodigal in our use of natural gas; it is estimated that as much natural gas is wasted as is utilized. In all probability the supply will be exhausted within the next quarter of a century.

The known supply of high-grade iron in the United States is estimated to be almost 5,000,000,000 tons. It is thought that there may be 75,000,000,000 tons of poor-grade iron which can be had only with relatively great expense and difficulty. About three fourths of the available iron ore is in the Lake Superior region. About one seventh of our annual supply comes from the southern district, comprising Georgia, Alabama, North Carolina, Tennessee, Virginia, West Virginia, Maryland, Kentucky, Arkansas, Missouri, and Texas; less than one fourth of the annual supply comes from the Northern District, made up of western New England, New York, New Jersey, Pennsylvania, and Ohio.

Iron is now used to make steel for buildings, railroads, ships, war supplies, and in countless other ways. The United States now produces about half of the world's annual supply of pig iron.

Gold, extensively used in the arts, but of most importance as our standard money, is found in many parts of our country, the most important deposits being in California, Colorado, Nevada, and Alaska.



IN THE OIL REGION OF INDIANA

On account of the increased demand for petroleum, especially as fuel in internal-combustion engines, oil fields have been developed more rapidly than economically

Silver, also useful in the arts, and serving as a subsidiary coinage, is being produced as a by-product in mining other metals. The discovery of the Comstock Lode in Nevada in 1859 brought the United States forward as one of the great silver-producing countries of the world.

With the discovery of the usefulness of electricity, copper has come to be second only to iron in importance. The Lake Superior region, Montana, and Arizona have furnished our most important sources of copper.

Missouri, Idaho, Utah, and Colorado lead in the production of lead. While many of our states have zinc-bearing ores, Missouri takes the lead in the production of zinc. While about one thirteenth of the earth's crust is made up of aluminum, it is as yet expensive to extract. Our production of aluminum increased from 83 pounds in 1883 to 79,000,000 in 1914.

The United States is well supplied with clay, building-stone, and cements. Our country leads the world in the production of most minerals.

Nature's gifts to this country are many and abundant. These, too, are so available in increasing the sum total of human satisfactions that one may truly say that ours is a pleasant land in which to dwell.

QUESTIONS

1. Why is farming especially important in the United States?
2. Make a list of benefits derived from our forests.
3. What qualities determine the value of urban land? of agricultural land?
4. What is *intensive* cultivation? *extensive* cultivation?
5. Name the different uses of water.
6. How do minerals differ from other gifts of nature?
7. On a map of the United States locate the most important deposits of (1) coal, (2) petroleum, (3) iron, (4) copper.

8. Compare the resources of that portion of America settled by the English with that settled by the Spaniards. How do you account for the greater success of the English?

9. What is "made land"? May it be considered a gift of nature?

10. Name six leading industries in the United States. Where are they located? Why so?

11. What are the important manufacturing centers of your state? Explain their location.

12. Take some industry in your own city. Find why it was located and why it continues where it is.

13. The wastefulness of American farming has been the subject of much comment and discussion. Would it have been less wasteful to use European methods in this country?

SECTION 3. METHODS OF ENCOURAGING LANDOWNERSHIP

The efficiency of production is increased where land is cultivated by the owner instead of by a tenant; therefore organized effort to promote ownership has been resorted to, both for private gain and for the purpose of increasing production and better utilization of land. One of the oldest, as well as one of the most effective of the agencies for increasing ownership and land settlement, has been by private and public colonization.

The term "land colonization" has been rather loosely used in the literature of land economics; for example, it has been applied to land settlement by individuals who locate on land in new regions even when they have acquired homesteads individually. Colonization may be defined as *the land policy adopted for the settlement of new or only partially utilized land by groups organized under some definite leadership*. Colonization has taken two forms: (1) the one that is most familiar is known as "private colonization," which applies to those land-settlement policies where the enterprise is promoted by

private owners of the land for personal profit; (2) "public colonization" may be described as the plan of land settlement where the land is publicly owned and the settlement is promoted by specific authorization of law for the public good.

Private colonization schemes of land settlement have become a part of the land policies of most modern nations. The number of these has increased rapidly in this country in recent years.

Private land-colonization schemes have offered many possibilities and temptations to dishonest dealings and questionable practices: land hunger and ignorance of land values have made it easy for unscrupulous promoters to impose upon the prospective settler. But it is possible to find many examples of successful private colonization schemes. There are many men interested in land settlement who have contributed largely to the development of new regions and made possible home ownership for many men who otherwise would never have come into possession of the land they cultivate.

The public colonization policy of the United States government has had a very definite purpose. In the early years of our national history public lands were sold for the purpose of raising revenue; but that was not the primary purpose: throughout our history the object of such laws has been to increase the number of farm homes. The land-settlement act of 1862 made one hundred sixty acres the land unit. This land policy was reasonably effective for a time in increasing home ownership.

The most successful land-settlement act based on the principle of state aid in this country is that adopted in 1907 by California. This act was based on the success of similar policies in Australia and New Zealand. It provides for an initial appropriation of \$250,000, with which 16,480 acres of land were purchased. The administration of the act was placed in the hands of the State Land Settlement Board,

consisting of five members. The act specifically provides that the purchase of land may be made by a settler up to \$15,000. The purchaser is required to pay only 5 per cent of the purchase price of his land in cash, the balance due to run in payments for a term not exceeding forty years at 5 per cent interest annually. The purchaser agrees to cultivate the land in a manner approved by the State Land Settlement Board and to keep all buildings, fences, and other permanent improvements in good order and repair. His failure to live up to his obligations gives the Land Settlement Board the option of foreclosing on his claim.

A combination of private and public land colonization has been advocated by some economic writers. This plan was widely discussed in connection with the various schemes that were proposed for aiding soldiers to acquire farm homes immediately after the war. The plan contemplates a Federal or state commission that will promote land settlement through the coöperation between the owners of large holdings of land and colonization organizations created for land-settlement purposes. This plan is based upon the belief that owners and prospective cultivators of land quickly enough get together, provided a basis of mutual confidence is established. It is expected that Federal and state commissions will serve as intermediate agencies in bringing together large landowners and the private agencies that are to engage in the colonization plan. These private corporate agencies will finance the enterprise and sell the land allotments. The Federal or state supervisory commissions will be responsible for protecting the individual purchaser against dishonest dealings and questionable practices. The commissions will also supply expert assistance to the farmers as a means of developing the individual farm enterprise.

It is clearly the object of this plan to avoid the necessity of the state's assuming financial obligation as a direct aid to

those who acquire a farm home. On the other hand, it is the purpose of this plan to provide an agency for protecting the purchaser and to render him expert assistance in making his enterprise a success. While this plan has been actively advocated in Wisconsin, it has not been actually put into effect in any state up to the present time.

QUESTIONS

1. Define land colonization. What two forms does it take?
2. What has the Federal government done through its land policy to determine the size of farm units? Are you of the opinion that in general this is a land unit of economic sufficiency?
3. What is the object of state-aid land-settlement policies?
4. Briefly describe the state-aid land policy of California.
5. Discuss the merits of the land-settlement policy based on private colonization under public supervision.

SECTION 4. THE TRANSFER OF TITLE TO THE LAND

Farm-ownership and efficient production have no doubt been retarded by our complicated system of land transfer. Great expense is often involved in the transfer of land under our system. Proving titles to land often involves litigation. If a tract of land has been transferred many times, especially if a number of years intervene between the several transfers, it is often difficult to secure a clear title. Our court records are full of illustrations showing that through defective titles innocent persons have lost land that was bought in good faith. That this system has proved a discouragement to many prospective landowners who otherwise might have purchased farm homes is well known to everyone familiar with the situation.

The Torrens system of land transfer has been proposed as a remedy for this situation. This system provides that any landowner may take his evidence of title to the land-record office and, upon proving his title to the satisfaction

of the county clerk, who represents the state, may have his land registered in his name as owner and may be issued a certificate to that effect. This certificate gives him title, and if he wishes to sell, it is not necessary for him to trace his title beyond the registration in the record office. This one feature alone is a great improvement over our abstract system, where a complete trace of titles is required. Under the Torrens system the government guarantees the title. In the case of a sale a memorandum of transfer is made and this, with the certificate, is taken to the record office. The transfer is then entered upon the records and upon the certificate, and the transfer is complete. It is the *registration* that transfers the title, not the filing of the memorandum of transfer or the securing of the certificate.

The Torrens system originated in Australia and has since been adopted in several of the provinces of Canada and a few of our American states.

There is urgent need of simplifying our land-transfer system. It may not be practicable to adopt the Torrens system in the United States without modification, but a system of land registration that will reduce the cost and simplify the process of transfer, and at the same time give security to the purchaser, is necessary in the interest of increasing homeownership and correspondingly increasing production. It is reasonably certain that slowly but surely our cumbersome system of land transfer will give way to some simpler and less expensive method.

QUESTIONS

1. Can you give of your own personal knowledge an illustration of litigation resulting from the transfer or sale of land?
2. If possible secure an abstract of title from one of your local attorneys and describe some of its complications.
3. Discuss the advantages of the Torrens system; the disadvantages.

4. Why do you think it would be difficult to secure in your state the adoption of a transfer system similar to the Torrens?

5. How do you account for the fact that such a complicated system of land transfer has developed in this country?

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CHAPTER IV

LABOR

SECTION I. DEFINITION AND EXPLANATION

In his quest for satisfaction of his wants man makes use of the gifts of nature. But nature as we have seen does not furnish many goods ready for human consumption. The gifts of nature in most cases must be located, coaxed, transformed, moved, put into new combinations, before they will be of much service to man. To do this economically men use tools, machines, all sorts of devices. We call these tools or aids capital. These capital goods have to be made and adapted to particular uses. The invention and manufacture of aids, tools, devices — capital goods — require much human effort. Again, much effort must be put forth even with the assistance of tools and machines in order to prepare the raw gifts of nature for human consumption. The source of this effort is in human beings; that is, men must apply their own energies and nerve force to the production of goods which they need and desire. The end to which production is carried on is the welfare of mankind. In order to promote their own well-being, men must work, labor, and apply their energies with the aid of their man-made tools to the modification of such gifts of nature as may be available.

This human effort devoted to the production of goods we call labor. Labor, thus defined, has already been mentioned as one of the factors of production, the others being the gifts of nature, or land, and capital. Of the factors of production labor is the most interesting, because it is human effort put forth



WORKROOM IN A CLOTHES-MANUFACTURING PLANT

Labor is one of the most important and interesting factors of production

in the interest of human beings themselves. Every man is a means to his own well-being. He must strive for his own advancement. The end of labor is human progress and happiness. Labor is a means to this end and has no other justification. "In the sweat of thy face shalt thou eat bread!" The sweat of the face here refers to labor. The bread is necessary to sustain life, and as used in the quotation includes all means of sustaining life. Only the living can labor, and in order to live one must labor. Man is both a means and an end in himself. He uses his strength as a means of getting a living, of preserving and increasing his strength. When he works he is using his powers as a means of providing for his well-being; the end to which he applies his energies is his own welfare. When his exertions become excessive and impair his health or interfere with his enjoyment of the fruits of his toil, he defeats the very purpose of labor; on the other hand, refusal to put forth reasonable effort will lessen the sum total of satisfactions.

Performing labor is in itself a source of satisfaction to many people. Developed and progressive people find joy in useful toil. The instinct of workmanship is of great importance in a consideration of labor as an aid to production.

QUESTIONS

1. Define labor. Illustrate.
2. What is the instinct of workmanship? Illustrate its importance.
3. Is irksomeness of labor inevitable? How, if at all, may it be minimized? (D.)
4. Are the following productive laborers: a policeman on duty; a piano-teacher; a criminal lawyer; a bond salesman; a smuggler; a candidate for office; a preacher; a carpenter; a detective; a baseball umpire; a member of a football team? Define a productive laborer.

SECTION 2. MALTHUS'S THEORY OF POPULATION

The supply of labor depends upon the quantity and the quality of the population. Let us first consider the number of the people. As we shall see later, the number of people which a country will support in greatest comfort will depend very largely upon the economic organization within that country. In a new country like America or Australia population tends to increase rapidly. In countries having access to new lands, like ancient Greece and Rome or modern England, there will be less restraint upon numbers than in old settled communities shut off from opportunities to colonize and with rather fixed habits of carrying on business. In countries with an improving economic organization, population tends to increase, as in modern Germany.

With the opening of the modern era in human history there was a movement in western Europe toward nationalism. The people of Spain, of France, of England, of Holland, and of other western European countries began to think of themselves as members of a nation apart from other peoples. Patriotism and pride in country developed. Policies of government were worked out looking to the increase of the wealth of these rising nations. The governments tended to become centralized and strong. International conflict developed, bringing a series of expensive and exhausting wars. It was observed that a big army was an advantage. The more people in a country the more soldiers there might be. Along with and as a part of this nationalistic development there was a great increase in commerce and in manufacturing. Employers of wage-earners greatly multiplied. They saw that the greater the supply of wage-earners the lower would be the wages which they would have to pay, and they readily joined the recruiting sergeant of the army in furthering policies designed to increase the population.

There were some thinkers who advised against encouraging an unheeding and blind increase in numbers. Conditions at the opening of the nineteenth century were such as to illustrate with telling effect the conclusions drawn by these teachers. Among these conditions, particularly in England, were a series of bad crops; the Napoleonic wars, which made such drafts upon the resources of the country as to threaten exhaustion; new processes in industry which were throwing large numbers out of employment; and an unwise poor law. In the midst of this gloom Thomas Malthus, a rector, wrote an essay on the "Principle of Population."

Malthus taught that all forms of life seem to have a capacity for greater increase in numbers than the means of sustaining life will permit; that population may, and even tends to, increase in a geometrical ratio and the means of subsistence increases more slowly; that while potentially the human race may increase in a geometrical ratio, actually the means of subsistence could not be made to increase faster than in an arithmetical ratio. To illustrate: if there were no restraints the population would double every twenty-five years, the ratio being 2, 4, 8, 16, 32, 64, 128, 256, ad infinitum; on the other hand the means of subsistence could hardly be increased faster than in an arithmetical ratio: 2, 4, 6, 8, 10, 12, 14, 16. Malthus pointed out that there is an inherent tendency of population to increase faster than the means of its support. Clearly the increase could not go beyond the food supply.

The conclusion was drawn that certain checks kept population within the limits imposed by the means of subsistence. "The checks to population, which are constantly operating with more or less force in every society to keep down the number to the level of the means of subsistence, may be classed under two general heads: the preventive and the positive checks." The preventive checks include those influences which lessen the possible number of births, one of the most

important of these influences being moral restraint, or the postponement of marriage, such postponement being from motives of economic prudence and characterized by "a conduct strictly moral during the period of this restraint." The positive checks "include every cause, whether arising from vice or misery, which in any degree contributes to shorten the natural duration of human life," as wars, disease, infanticide, starvation. His conclusion was that the checks are all resolvable into moral restraint, vice, and misery. Moral restraint being regarded as an ideal, a counsel of perfection, the pressure of population becomes a constant source of want and wretchedness.

This part of Malthus's teaching is generally accepted, and the experience of the race seems to bear it out. He underestimated the extent to which the gifts of nature may be utilized. There have been great increases in population, and a general improvement in the material condition of western peoples during the past century. How much longer new inventions and improved processes will enable us to make greater drafts upon natural resources no one can say. The world is no doubt capable of sustaining more people and in a greater degree of comfort than anyone has yet believed possible; still, in spite of man's ingenuity in tapping and utilizing the gifts of nature, a limit may be reached in the number beyond which an increase will necessitate a lower standard of living, if not misery and wretchedness. Malthus also overlooked the possibilities of moral restraint in adjusting numbers to the supply of goods. Evidence seems to point to such an adjustment and an improving scale of living for all.

QUESTIONS

1. Why are families larger in a frontier community than in an older and well-populated district?
2. England now has about six times as many people as when Malthus wrote. There is less suffering among the poor, and the

working-classes are much better fed, clothed, and housed, and have enjoyments which were not thought of a hundred years ago. Do these statements disprove Malthus's doctrine?

3. What did Malthus mean by the "tendency" of population to outstrip subsistence? Does this tendency exist today in the United States?

4. Explain the meaning of the phrases death rate, birth rate, preventive check, positive check.

SECTION 3. SOURCES OF INCREASE OF LABOR SUPPLY

The increase in the numbers of a people depends, first, upon an excess of births over deaths, or natural increase, as it is sometimes called; and, second, upon immigration. The number of births depends for most part upon customs relating to marriage. The age at which marriage takes place varies in different countries and among different classes within the same country. Marriage is often at an earlier age in warm climates than in colder climates. The unskilled worker is apt to marry early. This is because the earning-power of the unskilled is about as great at eighteen as at twenty or later. Then, too, he expects his children to become self-supporting by the time they are sixteen or eighteen, perhaps even younger. We say he expects them to go to work while young; perhaps it would be more accurate to say that they must of necessity leave school and begin to earn their own living at an early age. This has been necessary because of the low wages of unskilled workers for so long that it is accepted as a class characteristic. No doubt in many cases these parents would keep their children in school if they could. In other cases the parents think it proper for their children to go to work at an early age as they themselves had to do. Going to work early and becoming economically independent while young encourages early marriage.

Among the middle classes, business men and professional men, marriage is much later. One going into business or a

profession has not reached his maximum earning capacity until he is nearly forty. Moreover, his individual standard of living is high, and when he marries, his wife is apt to be from a family accustomed to a high standard of living. Marriage will immediately more than double his expenses without adding to his income. Then, too, he expects to support his children even beyond their majority. Educating them and helping them get started in life is expensive. In order to be able to meet these expenses people of such tastes and habits as those which characterize the so-called middle class ordinarily marry later than do others. The son of an unskilled worker is apt to marry by the time he is twenty-one; the marriage of a skilled wage-earner will likely be two to five years later than that of one entering upon a life of unskilled labor. One going into a profession is apt to delay marriage from two to ten years later than one going into skilled labor. By refusing to marry early, by breaking away and learning a trade or getting an education, the son of an unskilled laborer may rise to the ranks of the skilled or even to the well-to-do middle class; by disregarding his opportunities for self-improvement and marrying early, the son of successful middle-class parents may precipitate himself into the ranks of the unskilled. The same conditions which help to determine the age at which men marry are influential in the case of women. Then, too, there is some correspondence in the ages of couples who marry.

The birth rate is higher with those who marry young. Early marriages being more common among the least skilled workers, most of the large families are found among them. The standard of living has much to do with the birth rate. The standard of living is the set of satisfactions one strives to obtain. Another great influence is the ease or difficulty with which children may make their way in the world. In a new country big families are the rule, because a young couple

can take up uncultivated land and in a short time be as comfortably situated as their parents.

Another source of growth of numbers is immigration, the coming of people born in other lands. All Americans are descended from immigrants. When we remember that the English did not begin to colonize in North America until the seventeenth century, we can realize that most of us are not many generations removed from some European country. This country was settled by immigrants who found difficulty in crossing to America.

The following table gives the figures for the past hundred years.

IMMIGRATION TO THE UNITED STATES BY DECADES: 1820-1920¹

YEAR ENDING JUNE 30	TOTAL NUMBER OF IMMIGRANTS	PER CENT		
		Northern and western Europe	Southern and eastern Europe	Other Countries
1820-1830	151,824	87	3	10.
1831-1840	599,125	92	1	7.
1841-1850	1,713,251	96	1	3.7
1851-1860	2,598,214	95	1	4.
1861-1870	2,314,824	88	2	10.
1871-1880	2,812,191	74	7	19.
1881-1890	5,246,613	72	18	10.
1891-1900	3,687,564	45	53	2.
1901-1910	8,795,386	22	72	6.
1911-1920	5,735,811			

It is clear from this table that immigration is of tremendous importance to the United States. In fact, it has been estimated that during some years of the twentieth century our increase in population has been due as much to immigration as to the birth rate; that is to say, for every child born in this country, someone born in another land emigrated to our shores.²

¹ Reports of the Immigration Commission.

² This estimate is only an approximation.

The following table shows the increase in the population of the United States since 1790.

YEAR	POPULATION	INCREASE	RATES OF INCREASE PERCENTAGE
1790	3,929,000		
1800	5,308,000	1,379,000	35
1810	7,240,000	1,931,000	36
1820	9,638,000	2,399,000	33
1830	12,866,000	3,228,000	33
1840	17,069,000	4,203,000	33
1850	23,192,000	6,122,000	36
1860	31,443,000	8,251,000	36
1870	38,558,000	7,115,000	23
1880	50,156,000	11,597,000	30
1890	62,622,000	12,466,000	25
1900	75,569,000	12,946,000	21
1910	91,972,000	16,403,000	21
1920	105,000,000	13,028,000	14

QUESTIONS

1. Does the birth rate exceed the death rate in your town or city? Cite statistics.
2. Can you explain the declining birth rate in America?
3. Why has immigration been so important to America?

SECTION 4. QUALITY OF POPULATION

Let us now turn to the quality of the population as influencing the labor supply. We must keep in mind that we mean by labor supply the human energy which may be applied to the production of those goods which men desire to satisfy their wants. The labor supply, as we are using the phrase, does not mean merely the people willing to work for hire, the wage-earners. This is the narrow sense in which the term is commonly used. It means the employee, the employer, the professional man, the housewife, any and everyone able and willing to render some service in turning out satisfactions.

A person of sound health, of power to endure, can accomplish more work than a weaker person. A person with intelligence to direct physical strength will be more effective than a dolt could ever be. There are certain general conditions which contribute to health and strength. Among these are (1) a continuous supply of the necessities of life; (2) hope and freedom; (3) change or variety (monotony is deadening); (4) congenial occupation; (5) a wholesome environment.

Health and strength may be impaired by interruption of the supply of the necessities of life, by taking away hope or curtailing freedom, by putting one in the treadmill of a changeless task and denying the opportunity for recreation and entertainment, by compelling one to follow distasteful employment, by unsanitary surroundings, by corrupting associations, by any evil influence which mars the wholesomeness of one's environment.

There is much waste of human energy due to neglect of the general conditions of health and strength. One source of loss and of weakness is the carelessness with which we have watched the gates through which immigrants enter our country. By referring to the table on page 45 you will notice during the past few years a complete shift of the source of our immigration from northern and western Europe to southern and eastern Europe. This means that the stocks which settled this country are no longer sending their children in large numbers to our shores. But different stocks, with different manners and customs, speaking strange languages, and accustomed to a lower standard of living, in recent years have been coming in prodigious numbers. By referring to the table on page 45 it is seen that in the last decade of the nineteenth century more than one half our immigrants were from southern and eastern Europe. During the first decade of the twentieth century nearly three fourths came from southern and eastern Europe. Large numbers of these immigrants are accustomed to a

standard of living much lower than that customary in the United States: for example, many of the peasant class of south-eastern Europe are unable to afford meat. The earlier immigrants were of the blond, Nordic stock, which has built up and defended the civilization of western Europe; the newer immigrants are either of the Mediterranean stock or of Asiatic (nonwhite) origin. Either of these new stocks tends to supplant the Nordic when it has opportunity to do so.

The coming of these new peoples in such large numbers has given rise to serious problems for which we have been unprepared. The medical inspection of immigrants has not been sufficiently rigid and thorough, and many with contagious diseases or with low vitality have been permitted to enter. Until recently there was no literacy test. Many immigrants could not read and write their own language. As many of them settled in "colonies" in our big cities it has been hard to teach them English or to get them interested in our institutions. Many papers and books in foreign languages are printed in this country, thus adding to the difficulties of assimilating the foreign-born into our citizenship. The immigrants coming, for the most part, from impoverished agricultural communities desire in this country to stay away from the farms. They go into something else and tend to "flock" to certain industries into which their friends and relatives have entered before them. This has caused overcrowding, low wages, and irregular employment.

Then, too, there has not been an inspection close enough always to detect the criminal. Many of the criminal class have been permitted to slip through our immigration stations. Many paupers have been sent over to us by charitable organizations on the other side.

The immigrants coming in such great numbers transplant to our soil the social and group prejudices of Europe. We have the serious problem of "hyphenated citizenship."

Racial animosities, different standards of family relation, the non-American atmosphere of the crowded foreign colonies, the poor housing and poor food which the immigrants tolerate, the great numbers in which their women and children go into gainful employments, the readiness with which they play into the hands of little groups of greedy employers who seek to beat lower the American standard of living for the sake of their own profits, all these contribute to the many problems of immigration which now perplex us.

Another source of waste is our imperfect control over the defective classes. Very inadequate provisions are made to prevent the feeble-minded or the vicious classes from propagating their kind. It is estimated that the crime and pauperism of the notorious Juke family cost the people among whom they lived \$1,308,000.¹ Think of the misery, the crime, the loss of property and life, which might have been avoided if the first Juke pair to show criminal tendencies had been isolated and not permitted to marry.

Again, the health and strength of the population suffer through the neglect of physical defects which could be corrected, and through failure to take proper precaution to prevent disease. It is estimated that 80 per cent of all physical defects may be remedied. Investigations indicate that not less than 60 per cent of American school children are handicapped by removable physical defects, and that as a result they are on the average making 9 per cent slower progress in their studies than they should. It is estimated that about ten million children have bad teeth; and children with bad teeth require about a year longer to reach the eighth grade. Children with adenoids require about a year longer to reach high school; and about one eighth of the children of America have adenoids.²

¹ Dugdale, *The Jukes*, p. 67.

² There is much annoyance and loss of time from illness and ailments which are largely preventable. Did you ever try to work with a toothache? No

QUESTIONS

1. Is it possible, as some contend, that our population is no greater than it would have been without the immigration of the past hundred years?¹

2. Name the ways in which our immigration policy has contributed to weaken the strength and to impair the health of our population.

3. How much does your community expend each year upon care of defective and delinquent classes? What institutions other than the jail does the community provide to care for these classes? Is the effort put forth calculated (1) to improve the defectives dealt with, (2) to prevent the development of such cases in the future? Do you think of any better way of dealing with delinquents and defectives than the present methods? How much would be saved to your state by the elimination of defective and delinquent classes?

4. How much time have you and members of your family lost during the last year from colds? from other preventable diseases? Would the gains justify the precautions to avoid such diseases?

SECTION 5. POSSIBLE WAYS OF IMPROVING THE QUALITY OF THE POPULATION

What may be done to promote the health and strength of the population? First there can be the correction of errors in our immigration practices in so far as these contribute to

one seems to die of toothache, yet how disconcerting is the pain locked up in a molar. How much of impaired efficiency and misery may be traced to such troubles as dyspepsia, jaundice, insomnia, neurasthenia, nervousness, neuritis, neuralgia, headaches of divers varieties, tonsillitis, bronchitis, hay fever, catarrh, grippe, colds, sore throat, rheumatism, lumbago, obesity, decayed teeth, bad hearing, defective vision, spinal curvature, lameness, sprains, bruises, and corns. What an army of doctors are kept busy prescribing for these ailments, most of which should never have developed. How many druggists and delivery boys are employed to distribute pills, patent medicines, remedies good, bad, and indifferent, for these irksome troubles which we are often ashamed to acknowledge. It is estimated that preventable sickness costs in the United States every year more than one billion dollars. It is impossible to estimate the unnecessary inconvenience and suffering from preventable causes.

¹ Cf. *Throwing away Our Birthright*, W. R. Thayer, *North American Review*, Feb. 1922, and Marshall, Wright and Field, pp. 146-149.



A CLASS OF CHILDREN WITH DEFECTIVE EYESIGHT

By means of special equipment and attention these children are able to work without injury to their eyes. If more attention were paid to the physical defects of our school children, the quality of the population would be improved

weaken the health and strength of the people. After an investigation the Immigration Commission came to the conclusion that such errors in our practice could be corrected by legislation framed with reference to the following principles:¹

1. Care should be taken that immigration be such in quality and in quantity as not to make too difficult the process of assimilation.

2. Considerations touching the prosperity and economic well-being of our people should be kept in mind.

3. Economic opportunity should be safeguarded for those dependent upon gainful employment for their material, mental, and moral development.

4. A slow expansion of industry which would permit the adaptation and the assimilation of the incoming labor supply is preferable to a very rapid industrial expansion which would result in the immigration of laborers with low standards of living and of efficiency.

The Commission then made definite recommendations in harmony with these principles. Among these recommendations were the following:

The investigations of the Commission show an oversupply of unskilled labor in basic industries to an extent which indicates an oversupply of unskilled labor in the industries of the country as a whole, and therefore the commission asks for legislation which will at the present time restrict the further admission of such unskilled labor.

It is desirable in making the restriction that (1) a sufficient number be debarred to produce a marked effect upon the present supply of unskilled labor; (2) As far as possible the aliens excluded should be those who come to this country with no intention to become American citizens, but merely to save enough, even by adoption of low standards of living, to return permanently to their home country; (3) as far as

¹ Reports of the Immigration Commission (1911), Vol. I, 45 f.

possible the aliens excluded should also be those who because of personal qualities or habits would be least readily assimilated or would make the least desirable citizens.

The following methods of restricting immigration were suggested :

1. The exclusion of those unable to read or write in some language.

After being vetoed once by President Taft and twice by President Wilson, a law carrying this provision was finally passed over President Wilson's veto.

2. The limitation of the number of each race arriving each year to a certain percentage of the average of that race arriving during a given period of years.

3. The exclusion of unskilled laborers not accompanied by wives or families.

4. The limitation of the number of immigrants arriving annually at any port.

5. A substantial increase in the amount of money required to be in the possession of the immigrant at the port of arrival.

6. An increase in the head tax.

7. A levy of the head tax so as to discriminate in favor of men with families.

It seems that we might provide for a conscious selection of the best quality among those seeking to enter our country and reject all others. The future of America depends largely upon the quality of the population. Who shall be the parents of future Americans? Shall they be exclusively of sturdy, virile stock, with clean blood and worthy aspirations, or shall there be among them the weak and the rejected of other lands?

Eugenics is also urged by some careful students as a means of improving the quality of the population. Eugenics has been defined as the study of agencies under social control that may improve or impair the racial qualities of future generations either physically or mentally. It is concerned for the

most part with the study of human heredity and of social influences which act through heredity for racial degeneracy or racial improvement.

The advocates of eugenics lay great emphasis upon heredity. Attempts to apply the knowledge of heredity toward the improvement of the race may be classed as either positive eugenics or negative eugenics. Human beings have wills of their own and make individual choices. It has not seemed possible as yet to do much in developing a positive, constructive program for growing a better human type. If it were possible to carry out a positive program who would have the wisdom to know just what types had best be developed? There seems to be more promise of results immediately beneficial from a negative or restrictive program. It would seem more practicable and desirable to restrict noneugenic marriages. People with certain contagious or incurable diseases, feeble-minded persons, moral perverts, people with pronounced tendencies toward criminality, could be restrained from marrying.

Education offers a positive means of improving the quality of the population. It is commonly accepted that the body should be developed; that is, educated. Primitive peoples trained their bodies to endure the hardships of the march, the fatigues of the chase, the rigors of physical conflict. Most advanced peoples have given some attention to physical training. We Americans assume that it is good. But we are rather inclined to expect physical development as a matter of course and without conscious and organized effort directed to the education of the body. This is natural, for the physical development of the American people has for several generations been unconscious and a by-product of contact with the frontier. When European stocks settled in this country they found great demand for physical strength and endurance. The clearing of forests, the cultivation of crops, hunting,

fishing, fighting Indians, the various activities of pioneer life, called for much bodily exertion. This struggle with the difficulties of a new country gave us a race of unusual physical vitality. Health, vigor, and strength were natural results from the daily life of the people. With the passing of the frontier conditions, with the recent development of great cities, with our many labor-saving machines and highly specialized tasks, we have lost the old opportunities for unconscious physical development. The American army in the recent war was representative of our citizenship. More than a third of all those called were rejected on the ground of physical unfitness. Local boards rejected 29 per cent; camp surgeons added to these another 6 per cent.

Proper physical training will lengthen life. During the Middle Ages little attention was given to health. The bodies were to be mortified. The length of life was shortened rather than lengthened. During the past three or four centuries the average length of life in western Europe has about doubled. Most of this increase took place in the nineteenth century and in those countries which consciously developed the best systems of physical training. Professor Irving Fisher says:

It would be surprising if the future should not witness a further lengthening of human life and at an increasing rate. Of course there is a limit to the further increase of human life, but there is good reason to believe that the limit is still far off.

Then, too, physical education will promote sound health and add to efficiency and capacity to work. The productivity of the laborer will be increased, and there will be saved the wastes incident to the sickness and weakness certain to develop from neglect of physical training.

Again, education of the mind is of tremendous importance in improving the quality of the population. Man's adaptation to his environment is furthered by mental processes. All his progress in utilizing the gifts of nature has come from



SCHOOLGIRLS EXERCISING, PEKING

Physical as well as mental training adds to the efficiency of the people. Here is evidence that China is alive to the importance of the proper physical education of young women

intelligent direction of his powers. The formal discipline of the schools is of incalculable worth in furthering the development of mental power.

In a democracy the only assurance of good government is in an intelligent, high-minded citizenship. America was the first nation in the world to offer elementary education to all children at public expense, and not only has provided free schools but, in most states, insists that children between certain ages shall attend school. America is still unique among the countries of the world in offering to its youth free education in high school, college, and university. It is felt that the importance of an educated citizenship justifies the training of youth through the high school at public expense. Efforts are being made to extend our high school system until a good high school shall be within the reach of every capable child, whether in the city or on the farm. Many states provide college and university training without charge for tuition; and the privately endowed colleges and universities offer many scholarships to worthy students and are constantly endeavoring to increase their funds for this purpose. When a college or university is in a large city, the opportunities for self-help are limited practically only by the energy and capabilities of students who are ambitious for an education. At the same time, it is true that in small towns, where, fortunately, many colleges are placed, such opportunities are limited; and it is true that to take full advantage of a college course absorbs the time and energy of all but the most vigorous and able. Many persons feel that the gain to the nation would justify a considerable additional contribution by the community to the higher education of its youth. It has been suggested that dormitories might be provided in which rooms should be allotted free of charge or at a nominal rental to cover repairs and upkeep of the buildings, that food might be served to students at a price just sufficient to cover the

wholesale cost of materials, the overhead expense and the cost of preparing and serving being borne by the public. Such an arrangement, with free tuition, would reduce a student's expenses to a point where the chance for an education would not depend upon the resources of parents but upon the ambition and ability of the boy or girl.

Then, too, education involves the development of desirable qualities of character. Too much pains cannot be taken to instill the principles of honesty, of respect for the rights of others. No individual student can be too diligent in training himself to be trustworthy and responsible. The frontier in America developed self-reliance, initiative, resourcefulness, courage, and honesty. These are qualities which must be preserved and strengthened, if America is to go forward as a self-governing country, a land in which justice shall be done and the highest standards of right be maintained.

QUESTIONS

1. Should immigration be forbidden? Should it be restricted? Give reasons for your position.
2. State arguments for and against a literacy test.
3. What is meant by eugenics? To what extent may the population be improved in quality through the application of eugenics?
4. What is the American attitude toward physical training? Name some results which you would expect from physical training. What plan do you recommend looking to the proper physical development of the entire population?
5. What do you think of the plan suggested in the text for increasing the opportunities for education? Draw up a plan of your own. Make a list of benefits you would expect to follow from the adoption of your plan.
6. What means do you suggest for developing desirable qualities of character? Make a list of desirable qualities of character.
7. What immigrants are coming to your state? Should they be permitted to come?

8. Define "standard of living." How does unrestricted immigration affect the standard of living? How does the standard of living affect immigration?

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CHAPTER V

CAPITAL

SECTION I. INVENTIONS AND DEVICES

The gifts of nature were here first. Then came man. Nature and man were the original factors of production. Man turned directly to the gifts of nature and, unaided, with his own hands, took what he could get to satisfy his wants. So long as he went in pursuit of what he wanted, with no aids but his bare hands, he encountered difficulties which we can hardly imagine. There were very few things in nature's great storehouse which he could obtain readily. Wild fruits, roots, small animals, and the like had to be hunted, and for these he was in competition with dangerous wild animals. If we go back through the ages far enough, we come to a time when man possessed nothing but his hands with which to get food, to protect himself, and to satisfy all his needs. There was no one to teach him anything. The first men who began in that situation had to learn everything for themselves by slow experience and long effort. When the first tool was invented we do not know; what it was we cannot conjecture; but every tool, however simple, had to be invented.

One invention led to another. Each tool or device we now have grew out of earlier inventions, and each would have been impossible but for the inventions which went before it. We could go back to where there would be no one who could build a cart, because no one had invented a wheel. We should not have to go back very far in human history to come to a time when no metal tools were in existence, because no one had ever seen any metal. A few thousand years ago there were no

sailors to pilot people across the seas, because no ships had been made; no stone buildings, because no one knew how to cut stone; no books, because there were no writing materials and no one who had learned to write.

How long ago was the first invention? Who was the inventor? What was first invented? How we should like to know the answers to these questions! There was a first invention, as in the course of time there have been innumerable inventions. To assist him in getting from nature what he wants, man has made many tools; to increase his power over nature, he has contrived many devices. These have profoundly influenced the progress of the race and the course of human history. Some have been well-nigh revolutionary in their effects upon the habits of people.

Such an invention was the making of fire. How men learned to make fire we do not know. They may have become acquainted with it around some volcano, or from the lightning setting fire to a tree. How they learned it, when they learned it, we can only conjecture. After they learned to make fire they were able to move into colder climates. The knowledge of fire enabled men to spread over the entire world and to make their habitation in almost every land. Having fire, they learned to cook. By cooking they were able to render digestible many things which before they could not eat. They were able to burn harder points upon their wooden spears, and so increase their effectiveness in hunting and in fighting.

Another early invention of great importance was the stone hatchet. Perhaps the earliest stone hatchets were largely fashioned by nature. A blunt edge was made by beating with another stone. After a while someone learned how to sharpen the stone tools by friction. About eight or ten thousand years ago, it is believed, men were learning to grind edges upon their stone implements. For thousands of years

stone tools were in common use, new ones being added from time to time. We call that period of human history the stone age.

Another important step in human progress was the domestication of plants and animals. Millet, barley, and wheat were cultivated by some of the late Stone Age peoples. Dogs, sheep, goats, cattle, were taught to live among men, under their direction and care, and to serve their needs. It was a long time before the horse was tamed. The domesticated horse appears in history for the first time about 2100 B.C. People to the east of Babylon brought the horse into the valleys of the Tigris and Euphrates, and it was called by the Babylonians the ass of the East. The horse was instrumental in the overthrow of a government in Babylon.

The working out of a calendar added greatly to conveniences. The Egyptians divided the year into twelve months of thirty days each, with five days of holiday additional. The earliest dated event in history is 4241 B.C.

The alphabet was used in Egypt over five thousand years ago. Then followed writing and the invention of writing materials.

The discovery of metal was an extremely important step in human progress. Up to about six thousand years ago metals were unknown. It is believed that copper was accidentally discovered about 4000 B.C. by someone who built a camp fire on the plains near Sinai. He accidentally built fire against a piece of ore; the chemical action resulting released the metal, and the man picked up the shining lumps of copper from the ashes. About three thousand years before Christ, the use of copper was introduced into southwestern Europe. The Hittites seem to have been the first to make use of iron. They taught the Assyrians how to obtain it. The Assyrians built chariots of iron, improved their weapons of warfare, and were able to conquer western Asia, ushering in an Iron Age.

Somewhere and sometime a hoe was invented. After much experience with the hoe a dog, a donkey, or a woman was hitched to the hoe handle, another handle was made to guide the blade, and the world had the first wooden plow.

Perhaps the earliest transportation by water consisted in merely floating downstream on driftwood or on a log. Slowly experience and skill were acquired in guiding the drifting timber; then came efforts to stabilize the log; and finally there was developed the canoe, the small boat, the use of oars. Men learned to go up stream as well as down. For generations they hugged the shore of the mainland. Finally sails were attached to boats. About five thousand years ago sailboats began to put out to sea. We know that the Egyptians had sailing-ships during the twenty-eighth century before Christ.

One might make a list of important inventions, each of which has had far-reaching consequences. We frequently think of the importance of the invention of the mariner's compass, of the printing-press, of gunpowder, and we associate these with the great changes which took place about the opening of the modern era. To illustrate the revolutionary changes which may take place in methods of production from improvements in tools one has but to mention a series of inventions in the eighteenth century. In 1738 John Kay of Bury in Lancashire invented the fly-shuttle, a contrivance by which a weaver could, without an assistant, drive a shuttle back and forth through a wide strip by means of a handle placed in front of his stool. With this improvement weaving could be done more rapidly than thread could be spun. Prizes were offered for improvements in the spinning-wheel. About 1767 James Hargreaves, a weaver and carpenter of Blackburn, contrived a spinning-machine which he called the jenny, and which drove eight spindles instead of one and enabled a child to do the work of eight or ten persons

using the old-fashioned spinning-wheel. In 1768 Richard Arkwright, a barber of Preston, introduced a method of spinning by means of pairs of rollers placed a little distance apart and running at different rates of speed. In 1779 Crompton combined into one device Hargreaves's spinning jenny and Arkwright's roller machine and called the combination device the spinning-mule.

With these improvements thread could be spun so rapidly and for so much less expense than formerly that Kay's fly-shuttle was inadequate to help the weavers keep up with the spinners. Consequently there was pressure for improvement in weaving. This difficulty was overcome in 1787 by a clergyman, Dr. Cartwright of Kent, who invented a power loom.

With these great improvements in the machinery for spinning and weaving, there naturally followed a demand for fabrics. It was found that the Southern states in America were especially adapted to cotton culture. However, it was very laborious to separate cotton lint from the seed. In an entire day a man could pick off about one pound of lint from the cotton seed. Eli Whitney, a young school-teacher, invented the cotton gin in 1792. This made possible an ample supply of raw material for the new spinning and weaving devices.

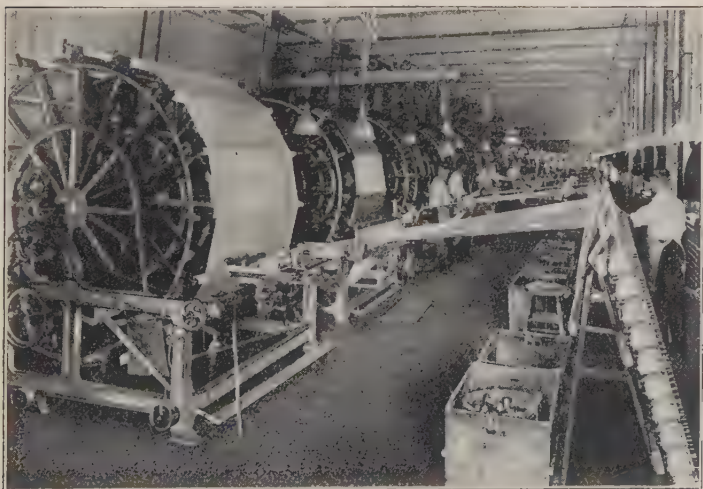
At first it was thought that the new machinery would be run by water power. This would have meant to locate factories at waterfalls or where water could be dammed and a waterfall created. James Watt took the lead in developing a steam engine. He labored from 1763-1819. In 1785 steam was first used to run spinning machines in a factory at Popplewick in Nottinghamshire.

The invention of power machinery has greatly increased man's control over nature. Men are now able to get in great quantities many satisfactions which were unknown or but



HAND AND FOOT LOOMS

Although these Japanese girls are skillful in the highest degree, this method of production is necessarily slow



WARPING ROOM IN A SILK MILL

Since the invention of power machinery production has been greatly increased, with a saving of time and labor



little enjoyed a few generations ago. There were other consequences of great importance: the growth of manufacturing towns; the appearance of wealthy owners of the new factories, who are often referred to as the capitalist class; the growth of a wage-earning class dependent upon the operation of these factories; problems of child labor; the expansion of commerce; the increase of leisure from the greater production of goods.

The American people fully appreciate the importance of tools, of labor-saving machinery. Many important inventions and improvements have been made by Americans. In 1834 Cyrus H. McCormick of Virginia took out his first patent on the reaper. The magnetic telegraph was invented in 1835 and practically applied by 1844. In 1846 the sewing-machine was invented. In 1876 came the invention of the telephone and by 1880 it was being used. In 1867 there was the beginning of the manufacture of Bessemer steel. The boot and shoe industry is typical of the machine methods of American manufacture.

"Here machinery seemed to have reached its culmination. The human hand does little but guide the material from machine to machine, and the hammering, the stamping, and the sewing are all done by the tireless energy of steam." . . . As a result of these various improvements the labor cost of one hundred pairs of men's boots was reduced from \$408.50 by hand labor in 1859 to \$35.40 by machine in 1895. The yearly product grew from \$80,750,000 in 1860 to \$196,920,481 in 1880 and to \$287,579,258 in 1900.¹

In 1910 thirty-five million of our people, working with the aid of machines and labor-saving devices, produced goods in such quantities that they were able to divide among themselves satisfactions which that year had a market value of more than twenty-five billion dollars. Contrast this great output supporting over ninety million people, with the production carried on by the Indians when America was

¹ E. L. Bogart, *Economic History of the United States*, p. 408.

discovered. The Indians had the same gifts of nature as we ourselves, but with a few wooden and stone implements they produced enough to sustain only half a million people. The Americans of today with many sorts of machines bring from nature's storehouse enough to support more than a hundred million people.

There are other machines which we yet need. One of these is a machine for picking cotton. If cotton could be gathered successfully by power machinery, millions of people would be released from the monotonous toil of picking cotton by hand and could be free to render other services and add to the sum total of human satisfactions. Moreover, hundreds of children now kept in the cotton fields during the fall of the year, often until Christmas, would be able to enter school in September.

QUESTIONS

1. Make a list of satisfactions which one might obtain with his bare hands. Compare those with the satisfactions now available to the average person.

2. Make a list of twenty of the most important inventions you can think of. Arrange these in the order of what you consider their importance. What satisfactions should we have to go without if any one of these could be taken away?

3. How much land could a man dig up in a day with a sharp stick? with a plow upon which he could ride? with a plow pulled by a tractor? Which way would be the most tiresome?

4. How far can a man walk in a day? How far can he go on a horse? How far can he go in an automobile? How far on a train? How far in an aëroplane? Which of these methods of travel would be the most tiresome?

5. How far can you hear a man shout without the assistance of mechanical device? How far could he be heard by means of a telephone?

6. Make a list of inventions which are yet needed.

SECTION 2. CAPITAL AND ITS SOURCE

The aids to production mentioned in the previous section are examples of what the economist calls capital. Capital may be defined as wealth devoted to the production of goods. Wealth as here used means material, economic goods; that is material goods which are not free gifts of nature. Wealth and services are both goods. But services are nonmaterial goods, being human energy applied, or labor; wealth is material goods, things with substance, things tangible and not free. Man's purpose in inventing, in providing machines and building houses for storing goods, is to increase his power over nature; that is, man uses capital as an aid in appropriating, reworking, and distributing the gifts of nature, that satisfactions may be more abundant.

Capital is created by refusing to consume all available satisfactions and setting aside some goods to be used in further production. This setting aside of goods to be used in further production, this refusal to consume goods for the immediate gratification of present wants, in order that the goods may aid in producing other goods, we call saving. In order to provide capital some who have title to and control over goods in being must preserve them, refuse to use them up, or to permit others to consume them, and see that they become aids to those seeking to add to the sum total of human satisfactions.

Saving is the source of capital. Saving may require serious sacrifice on the part of those with small incomes; on the other hand, it may be comparatively easy for the very rich, who find their incomes so great as to make the expenditure of the entire amount upon their own personal satisfactions rather troublesome. Since the great majority of people are not troubled by large incomes, and since most people are unable to satisfy their wants, saving in most cases involves

self-denial in the present, abstinence from satisfactions which people greatly enjoy and much desire.

QUESTIONS

1. Define capital. Illustrate.
2. Define saving. Is saving painful? Does it involve sacrifice in all cases?
3. Are the following capital: a pleasure car; a delivery wagon; seed corn; a railroad; a private car on a railroad; a horse; a library; a plow; a tractor; a dress suit; a warehouse; an education? Is an education material goods?
4. Is all capital wealth? Is all wealth capital?
5. Does the owner's intention make capital out of wealth?

SECTION 3. THE FUNCTIONS OF CAPITAL

As has already been indicated capital increases the productivity of labor. This is one of its most important functions. So much does capital assist labor that we speak of much capital as labor-saving machinery. By the aid of capital in the form of railroads coal is carried at the rate of less than one cent per ton for a mile. Try carrying a ton of coal by hand for a mile and for a reward of less than a penny. After such an experience one could appreciate the extent to which capital aids man in getting his satisfactions.

Again, capital makes possible a roundabout process of production. A man can go out and eat wild grain if he is hungry, if he can find it. Or he can go to work with his fellows, and make plows, seeders, reapers, thrashers, railroads, elevators, mills, storehouses, wagons, and then prepare land, sow wheat, harvest it, grind it into flour, and combine it with other materials and bake bread in an oven prepared in advance, with fuel which someone had obtained, and serve it on a table manufactured before the loaf was baked. This is a very roundabout way of getting something to eat. But it gives a surer supply and a better quality than could be had by



CAPITAL IN THE FORM OF A RAILROAD

Freight trains, as well as the regular passenger trains, are continually passing through these mountains, carrying coal, lumber, and other products in large quantities

going direct to nature. This roundabout process, giving such satisfactory results, would be impossible without capital. The plows, seeders, reapers, thrashers, elevators, mills, railroads, and storehouses mentioned in the illustration are but forms of capital.

Finally, capital makes possible the production of goods in anticipation of demand for them. Ordinarily goods are not made to order. They are produced with the expectation that somebody will want and use them. There is always a risk that the goods produced for prospective customers may not be wanted when brought to the market. Without capital it would not be possible to assume such risks.

QUESTIONS

1. What is the greatest labor-saving device you can think of?
2. Take a list of wants which you have previously prepared and see how many of them are satisfied directly; how many require previous preparation or a roundabout process before it is possible to satisfy them.

SECTION 4. CONDITIONS OF AND MOTIVES FOR SAVING

We have seen that capital is accumulated by saving, by abstinence, by waiting, by whatever you choose to call the setting aside of present goods for use in further production. One condition of saving is security in the possession and the right to use property. Any uncertainty as to title to goods due to possible changes in policies of government will discourage saving. Laws for the protection of property rights must be well understood and rigidly enforced if accumulations of capital are to increase. Under the Bolshevik régime in Russia there has been a lack of security of property and uncertainty as to ownership, as to control, as to future rights to its use. This has not merely discouraged saving but has resulted in using up much of the savings of the past and depleting the capital of that unhappy country. In America we have

very strict laws protecting property and property rights. These laws are well observed and enforced, because the people on the whole understand the vast assistance which the accumulation of capital renders in providing their support. To destroy or deplete present stocks or to discourage further accumulations means to interfere with the material progress of the race.

The influences that control the extent of the accumulation of capital are two: the strength of the desire to save and the extent of the surplus income over and above the necessities of life out of which savings may be made. The strength of the desire to save depends upon several facts: (1) The security of life and property. Without such security there would be small incentive to postpone enjoyment, for such postponement might result in no enjoyment at all. A strong and stable government is therefore of vital importance to the accumulation of capital. (2) The influence of climate has much to do in determining savings. In a tropical country, where fruits and vegetables can be had the year around with little effort, people seem willing to live by nature's bounty without the progress that comes with the aid of capital; on the other hand, where winter follows the season of harvest, people from necessity store up the products of the warmer months to sustain them during the bleak and barren winter months. (3) The spread of knowledge and increase of intelligence enables people to visualize the future. Educated people are usually more saving than others. For centuries the Indians possessed Central and South America, yet it never occurred to them to connect the two oceans with a canal. The negroes walked the shores of Africa and looked upon the Atlantic for thousands of years without being tempted to use the ocean as a highway. To engage in an enterprise that would require years of waiting for the returns is impossible for savages. (4) Imitation of others is a powerful factor in influencing people

to save. People frequently save merely because those around them do so. Thrift is often contagious. The custom in a locality in building a certain kind of house, or of improving the land after a certain standard, or of burying the dead expensively will lead people to save that they may not differ from their neighbors in complying with such established customs. (5) With many people an estimate of the needs of old age is one of the strongest motives for saving. An abhorrence of becoming dependent or of entering an almshouse has driven many a man to the most rigid economy to make provision for his declining years. (6) The desire for the enjoyment of leisure leads many, especially those in comfortable circumstances, to save. Among such enjoyments may be mentioned freedom from irksome toil, serenity of mind, foreign travel, study, interest in some form of philanthropy. The growth of corporations has greatly stimulated saving among people of this class. They are able to make good investments of any amount from one hundred dollars up to tens of thousands. Savings banks paying interest on deposits have also been of importance in influencing people to save. (7) The amount of income that capital will yield is an important factor. If the interest rate is high many will be persuaded to save by the prospect of the liberal return for the use of their capital; on the other hand, if the rate is low those who desire a certain income still make greater savings to secure it, while others will not be persuaded to save. (8) Family affection seems to be a universal cause for saving. Parents accumulate funds for the education of their children, to provide their families with comfortable or luxurious houses and furnishings, for life insurance against the risk of death, to give the children a good start in life. (9) The hope of social distinction, or of gaining a higher position for his family, has kept many a man in the treadmill of his business for years after securing competency. The expense of his family's social ambitions has made him

strive for millions, when he would have been content with thousands. Of course much that is saved may be spent unproductively and destructively in the pursuit of social favor, but it is the desire for such wholesale spending that leads some men to save.

The fundamental obstacle to saving is that men often prefer present enjoyment to future enjoyment. Once having determined the strength of the desire to save, the amount of savings will then be due to the size of the sum from which savings may be made. The desire to save may be strong enough, though the margin from which savings may be made is small, and the result be great accumulation of capital, as in thrifty Holland; or the desire to save may be weak, though the margin is great, and the result be insignificant, as in prodigal Central America.

The following table indicates the increase in the quantity of capital in the (continental) United States:¹

CENSUS YEAR	TOTAL ACTIVE CAPITAL
1850	\$ 2,757,000,000
1860	5,900,000,000
1870	8,978,000,000
1880	13,636,000,000
1890	19,298,000,000
1900	24,783,000,000
1910	47,961,000,000
1920	160,000,000,000

NOTE. It is estimated² that the total national income from which savings may be made increased from \$28,800,000,000 in 1909 to \$61,000,000,000 in 1918. But the total national income in 1918 amounted to only \$38,800,000,000 in the prices of 1913. That is to say (without taking into consideration changes in population and in the scale of living), the cost of saving did not decrease in proportion as income increased.

¹ King, *Wealth and Income*, p. 43, except for 1920, which is the author's estimate.

² National Bureau of Economic Research, *Income in the United States*, p. 143, Harcourt, Brace, and Company, 1921.

QUESTIONS

1. How could society further encourage the accumulation of capital?
2. Name some laws which encourage saving.
3. Name some so-called reforms which if accomplished might discourage saving.
4. "The savings of the people of the United States are nearly a billion dollars a year. What and whose are they?" (*Fet.*)
5. To what extent and in what manner do the following contribute to the formation of capital: a miser; a postal-savings bank; a life-insurance company; government-borrowing; a manual-training school teacher; a college professor; a court? (*D.*)

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CHAPTER VI

CURRENT ORGANIZATION

SECTION I. SPECIALIZATION

The fundamental principle of economic organization is the division of labor. "The greatest improvement in the productive powers of labor, and the greater part of the skill, dexterity, and judgment with which it is anywhere directed or applied, seem to have been the effects of the division of labor."¹

"The history of industry can be viewed as simply the ever-widening application of the principle of the division of labor; the latest economy in business organization, the so-called 'scientific management,' is a conscious application of it."²

"From the point of view of the individual, the division of labor means specialization; from the point of view of society it means coöperation."³ By doing one thing, or one phase of a task, a person becomes highly efficient. Tasks are subdivided until the operations become quite simple. The simple operation is repeated frequently, until the worker can almost do it automatically. But where a task is broken up into a number of operations, all engaged in the simple operations must coöperate; that is, work together.

The aid to production of the division of labor or specialization, as we call it, is well illustrated in a classic passage from the "Wealth of Nations"⁴:

¹ Adam Smith, *The Wealth of Nations*, Book I, chap. i.

² Clay, *Economics for the General Reader*, chap. vi.

³ *Ibid.*

⁴ Book I, chap. i.

To take an example, therefore, from a very trifling manufacture; but one in which the division of labor has been very often taken notice of, the trade of the pin-maker; a workman not educated in this business, nor acquainted with the use of the machinery employed in it, could scarce perhaps, with his utmost industry, make one pin in a day, and certainly could not make twenty. But in the way in which their business is now carried on, not only the whole work is a peculiar trade, but it is divided into a number of branches, of which the greater part are likewise peculiar trades. One man draws out the wire, another straightens it, a third cuts it, a fourth points it, a fifth grinds it at the top for receiving the head; to make the head requires two or three distinct operations; to put it on is a peculiar business, to whiten the pins another; it is even a trade by itself to put them into the paper; and the important business of making a pin is, in this manner, divided into about eighteen distinct operations, which, in some manufactories, are all performed by distinct hands, though in others the same man will sometimes perform two or three of them. I have seen a small manufactory of this kind where ten men only were employed, and where some of them consequently performed two or three distinct operations. But though they were very poor, and therefore but indifferently accommodated with the necessary machinery, they could, when they exerted themselves, make among them about twelve pounds of pins in a day. There are in a pound upwards of four thousand pins of a middling size. Those ten persons, therefore, could make among them upwards of forty-eight thousand pins in a day. Each person, therefore, making a tenth part of forty-eight thousand pins, might be considered as making four thousand eight hundred pins in a day. But if they had all wrought separately and independently, and without any of them having been educated to this peculiar business, they certainly could not each of them have made twenty, perhaps not one pin in a day; that is, certainly, not the two hundred and fortieth, perhaps not the forty-eight hundredth part of what they are at present capable of performing in consequence of a proper division and combination of their operations.

In the meat-packing industry the division of labor has been worked out minutely. A gang of two hundred and thirty

men can kill and dress one hundred and five cattle in an hour.¹ This is because each man has a definite operation assigned to him, and performs that over and over again.

We have the division of labor according to trades and industries, as the doctor, the lawyer, the baker, and the shoemaker. Then we have specialization within the trade. A doctor may become a specialist in treating nervous diseases, the eyes, or in some phase of surgery. The lawyer may specialize in damage-suit practice, in looking after patent rights, or in some branch of corporation law. Baking may be taken over by a firm with a number of employees, each with a definite task. Or the work of the shoemaker may be subdivided in the factory and parceled out among dozens of specialists.

When a task is so subdivided that some of the operations are simple enough to be done automatically, a machine is likely to be invented for the operation. The machine works with greater precision and evenness, and the worker is employed merely to look after the machine or a series of such machines. Specialization leads to the invention and use of machinery, and the use of machinery makes possible even greater specialization.

Modern industrial organization is characterized by specialization. Specialized services and material goods are exchanged in the market for the goods of other specialists. A wide market and conveniences necessary to exchange of goods make possible the high degree of specialization with which we are familiar.

The advantages of specialization are (1) less strain upon the worker, in so far as ease comes with simplicity of operation; (2) greater dexterity, due to much repetition of the same thing; (3) great accuracy; (4) a shortening of the period necessary to learn an operation; (5) great increase of output. The disadvantages of specialization are (1) narrowness of

¹ John R. Commons, *Quarterly Journal of Economics*, Vol. XIX, pp. 3-4.

training and of experience for many workers; (2) danger that production may come to be regarded as an end in itself, instead of as the means of human welfare; (3) the tendency of routine work to destroy initiative; (4) the danger of over-production in certain lines. Some of the most serious of our current problems are to overcome these disadvantages and at the same time to retain the advantages of specialization.

QUESTIONS

1. What do you mean by the "division of labor"?
2. Explain the importance of the "division of labor."
3. Define specialization; coöperation. How does specialization call for coöperation?
4. Illustrate the importance of specialization in increasing production.
5. Name some forms of specialization.
6. How is specialization related to the use of machinery? Give six examples from your personal observation.
7. State the advantages of specialization. Give examples of each.
8. State the disadvantages of specialization. Give examples.

SECTION 2. THE ORGANIZERS OF INDUSTRY

It is easy to understand the advantages of specialization. We can see that the output will be greatly increased by subdividing a process into a number of operations and assigning each operation to a specialized worker. But who brings the efforts of the specialists into harmony? Through the toil of many people working at separate tasks in different communities, bread, for example, is produced in abundance. We know that at any one of the numerous bakeshops we can get a loaf of bread in exchange for ten or fifteen cents. Think of the people who coöperated in making this loaf! The wheat farmer, the

harvest hands, the employees at the elevator, in the flour mill, on the railroad, in the bakeshop, to say nothing of the number engaged in producing salt, fat, and other ingredients of the bread. All these types of specialists used tools and machines produced, in turn, by other specialized groups. Who coördinated the efforts of these widely separated specialists? The coördination was accomplished by another group, who specialized in organizing. As specialization has developed, there has grown up a class who unite the efforts of specialists. We may call them the organizers of industry. These organizers collect materials, assemble tools, employ laborers, transport and deliver goods. They themselves are subdivided into many groups, according to the particular types of organizing to be done.

Some organize the production of raw materials, as farmers or miners; some organize factories to modify these materials, as flour mills, cottonseed-oil mills. But the miller has small contact with the farmer. Someone must bring the wheat from the farmer to the miller. This is accomplished by another organizer, a middleman, who buys and sells wheat. There are organizations, like the bakeshop, which take materials in an intermediate stage, as flour, and work them into a consumable commodity. But the bakers and the millers are not always known to each other. This calls for more middlemen, such as jobbers and retail merchants, who bring together those manufacturers who work materials into an intermediate stage and those who turn out the finished product.

The organizers of modern industry are commonly known as business men. We know them as lumbermen, mine operators, railroad officials, bankers, manufacturers, merchants, and so on. They perform the indispensable services of coördinating specialists. They bring together the efforts of many people who often do not know for whom or for what end they work.

Who appoint these organizers? How do we select those who render such important service? (1) Some are appointed by the government, where the government owns or operates some important business. In this country the government appoints those who organize the postal service. During the war the government chose a director-general of railroads. In Germany railroad officials have been selected by the government. Various governments appoint some organizers. (2) The representatives of consumers may appoint those who conduct coöperative retail stores. (3) The great majority appoint themselves; that is, one undertakes to be an organizer of production when he thinks he can make something out of it. We rely upon individual initiative for most of those who have the great responsibility of coördinating the work of specialists. This is called freedom of enterprise. It is thought that only vigorous and aggressive people will select themselves for so responsible employment, and that none but the capable will survive.

Some criticisms have been made of our method of selecting organizers through mere self-appointment.¹ It is pointed out that one may be the son of a successful business man and inherit a high and responsible position to which he might never have attained of his own efforts; in fact, inheritance is so common that it might be spoken of as one way of selecting organizers. There are many mediocre sons of able fathers. One of the strange truths of history is the large number of distinguished men of unknown origin and the still larger number of unknown men of distinguished origin. In so far as heredity determines the selection of organizers, it is a hit-or-miss method which is too apt to bring undesirable consequences. Business failure is too expensive a way of eliminating the incompetents from the favored sons of fortune who are exalted to high position in our industrial organization merely through the accident of inheritance.

¹ Clay, *Economics for the General Reader*, pp. 60 ff.

To be born into the class of organizers of business is a great advantage, for the training, the traditions, the opportunities of that class are superior. There is no good reason for falling out with that fact. It is when circumstances are used to promote a less competent person in preference to one more competent that society is really injured. The majority who are not born into the class of organizers may be given free education, every opportunity to develop health, mental power, and character. If that be done the most competent are apt to rise. It is of greatest importance that such training and preparation be given or at least made easily available for everyone. Too much selection of organizers through mere inheritance is as likely to prove unsatisfactory in business as it has proved in government.

QUESTIONS

1. Who brings the efforts of specialists into harmony?
2. Could the people working at many different operations ever organize without the assistance of business men?
3. Who has most influence in subdividing processes into many operations: business men or their employees?
4. Would our railroads have been constructed without the assistance of special organizers? Can you think of any important business that would have been launched without active organizers, such as we designate as business men?
5. Show the importance of organizers of industry.
6. How are the organizers of industry selected? Can you think of any better way than self-appointment? State the advantages and disadvantages of freedom of enterprise.

SECTION 3. PRODUCTION IN ANTICIPATION OF DEMAND

We have seen that production in the Middle Ages was largely carried on in response to demands that were known and were well understood. Modern productive processes are organized to turn out goods in anticipation of demand. The demand has to be estimated in advance. If the estimate be too large,

there will probably be overproduction; if the estimate be too small, goods of the kind demanded probably will not be forthcoming in sufficient quantity.

The organizers of production must as a rule contract for the expenses of producing goods before the goods are brought to the market. Contracts must be entered into by the organizer for the use of needed land, for necessary forms of capital, for wages to be paid to laborers, before goods can be produced. Whether or not the goods after they are finished will sell in the market for enough to meet the expenses contracted for in order to make the goods, depends upon many things. After all expenses of producing goods have been determined through contracts for the necessary amounts of the factors of production, something may happen greatly to lessen or greatly to increase the demand for the goods. A war may cut off much of the market, or an unforeseen change in public taste may result in a demand for much larger quantities of a product.

Organizing production in anticipation of demand introduces speculation. Where we have uncertainty, risks are unavoidable. Risk is the essence of speculation.

Numerous devices have been worked out to enable organizers of production to shift a part of the risks they incur because of producing in anticipation of demand. Specialists in assuming certain risks have been developed, such as insurance companies, brokers, and professional speculators.

QUESTIONS

1. Illustrate what is meant by producing in anticipation of demand.
2. What is speculation? Illustrate.
3. Why do we have insurance companies?
4. How is it that we cannot know in advance what price goods will sell for in the market and yet know the cost of production?

SECTION 4. FORMS OF BUSINESS ORGANIZATION

Modern business organization takes one of three basic forms: (1) the individual proprietorship, (2) the partnership, and (3) the corporation.

These three forms are found in combinations of many varieties.

There are more business organizations of the first type — the individual proprietorship — than of any other. Farms, small shops, and some large enterprises are owned, organized, and directed by one man. This form is simple; it is easy to start a business as an individual enterprise; it affords a young man an opportunity to get into business in a small way and learn and grow with the development of the business. There are disadvantages which keep this form from being generally acceptable, especially for large enterprises. These disadvantages are (1) the limitation of capital to what the owner can command; (2) the necessity in a large business of leaving many important decisions to salaried employees, whose wisdom depends in large measure upon the ability of the proprietor to choose capable subordinates; (3) the unlimited personal liability of the proprietor for all the debts of the business.¹

The partnership differs from the sole proprietorship in that two or more persons own and manage the business instead of one. A partnership is created by a contract between the partners. Almost any sort of arrangement may be made by the partners as to the proportion of capital furnished or of earnings shared by the respective members of the firm. The partnership is quite a convenient form for those who sell professional services, such as lawyers, doctors, and civil engineers. Able men may be attracted to a partnership and share in the earnings in return for the services they perform. Still the

¹ Lough, *Business Finance* (Students' Edition), p. 13.

partners should be limited to those who would be congenial and could work together. The greatest handicap to this form is that each partner is personally liable for all the obligations of the partnership. A partner is liable not merely up to the amount of his investment in the business, but to the amount of the indebtedness of the firm, and his possessions outside of the business may be taken in satisfaction of partnership debts. This fact sometimes makes it difficult for a partnership to obtain additional capital for the business. Then, too, a partnership is terminated by the death or withdrawal of a member of the firm.

The corporation has come to be characteristic of modern business organization. It has developed through the experience of several centuries. The essential features of the corporate form are :¹

1. Permanence of organization. A corporation is not dissolved by the death or withdrawal of a stockholder.
2. Little or no direct personal relation among proprietors or between the proprietors and the business.
3. Control and management by elected representatives acting in trust for the proprietors.
4. Liability of proprietors limited to their investment or to some fixed amount proportioned to their investment.

A corporation may be defined as a voluntary association of individuals, authorized by law, and regarded by law as an artificial person (immortal, intangible, and invisible), capable of carrying on business like a natural person. A corporation is created through the grant of a charter by the state. The application for a charter usually contains the following information : (1) The name of the proposed corporation ; (2) the purposes for which the corporation is formed ; (3) the amount and classes of corporate stock ; (4) the location of the principal business office ; (5) the time the corporation is to

¹ Lough, Business Finance (Students' Edition), p. 26.

endure, usually without limit ; (6) the names and the addresses of the persons seeking to incorporate.

The capital of a corporation is supplied by persons — many or few — known as stockholders. They elect a board of directors. Each stockholder has as many votes as he owns shares of stock. The board of directors select the officers of the company.

About 20 per cent of the business enterprises of the United States are organized as corporations. They represent the most important businesses of the country. The corporation is becoming increasingly popular for small business. Of about three hundred and fifty thousand corporations in the United States, about three hundred thousand of them have capital of less than \$1,000,000, while only about fifty thousand corporations have capital of more than \$1,000,000.

The wide use of the corporation is due to its advantages as a form of business enterprise :

1. The corporation may be made up of any number of stockholders ; that is, there may be many owners. A person with only a few dollars may become a stockholder in a corporation. This possibility of a wide distribution of ownership enables a corporation to gather up capital in any amount. If a hundred million dollars is needed, it may be secured by getting thousands of persons to buy shares of stock in the corporation. No individual, no partnership, would be likely to raise so vast a sum, but the corporation enables a multitude of people to contribute according to their wishes and financial abilities.

2. The securities which represent ownership are easily transferred. The relationship between the owners and the company is impersonal. A change of ownership of shares of stock has no effect upon the business.

3. The liability of a stockholder in a corporation is limited to the amount of his investment. If the company fails, the

stockholders lose only what they contributed to the business. The law makes some exceptions to this rule; for example, in the case of banks the stockholders are liable to twice the amount of the stock held.

4. The government of a corporation is representative. The board of directors elected by the stockholders appoint the managers and are able to bid for first-class talent.

5. The corporation is not dependent upon the duration of the life of an individual. When a stockholder dies his stock in the corporation passes to his heirs, and they become the stockholders. The corporation lives on and is unaffected by the death of owners of stock.

Among the disadvantages of the corporation are: (1) governmental control. This has to be, yet many states have such a strict regulation as to discourage some who would like to incorporate. (2) There is some expense attached to incorporation. Fees have to be paid to the state in proportion to the capitalization. Then, too, there are certain taxes which in some states bear heavily upon corporations. But these disadvantages by no means counterbalance the advantages of the corporate form.

Without the corporation the great expansion of business, and the prodigious increases in capital which characterize the present, would have scarcely been possible.

A corporation obtains its capital from two principal sources: (1) the stockholders or the owners of the corporation; (2) the bondholders, or those who lend to the corporation. The stockholders receive certificates of stock in exchange for their contributions to the capital. The certificates of stock are of two important classes: preferred and common.

Preferred stock usually entitles the owners to the first claim to dividends after other expenses have been met. The dividends are usually limited to some stated amount such as 7 per cent of the par value per annum. It is sometimes

provided that if dividends are not paid on the preferred stock, the amount becomes a permanent debt of the company to the preferred stockholder. Such stock is called cumulative preferred.

The common stock is entitled to whatever is left after all expenses have been met and dividends have been paid to preferred stockholders. Ordinarily there is no limit to the amount of dividends which may be declared upon common stock, except, of course, the earning power of the company. The common stock in most cases carries the right to vote for members of the board of directors and upon such matters as are referred to the owners for decision.

Bonds are the written promises to pay the amount specified at a certain time in the future. Bonds are usually secured by a mortgage upon the property of the company. The interest on bonds must be paid before any dividends can be declared to the stockholders. Income from bonds, therefore, is surer than income from stock.

The sum of the par value of the stock and of the bonds of a corporation is its capitalization. To illustrate: if a corporation has five hundred bonds, each with a par value of \$1000, and ten thousand shares of stock, each with a par value of \$50, its capitalization is \$1,000,000.

Bonds and stocks are in most cases issued of some denomination. There are \$1 shares and shares for \$5, \$10, \$25, \$50, \$100, and so on. Shares of small denomination are issued when it is desirable to appeal to investors of small means. Bonds ordinarily are of larger denomination than stocks. Denominations of \$100, \$500, and \$1000 are most popular for bonds.

The denomination is also spoken of as the par value. The par value of stock may be as low as one cent or as high as ten thousand dollars. When stocks or bonds are issued for a given denomination, say \$100, and sell for their face value,

they are said to sell at par. That is, if a bond having a face value of \$100 sells for that amount, it is said to sell for par; if it brings above its par value, it is sold above par; if it brings less than its face value, it is sold below par. Bonds and stocks are called securities. When securities sell above par they are said to sell at a premium; when they sell below par they are said to sell at a discount.

QUESTIONS

1. Name and define the principal forms of business enterprises.
2. State the advantages and disadvantages (1) of the sole proprietorship; (2) of the partnership; (3) of the corporation.
3. Which of these basic forms of business organization is best adapted to large scale enterprise? to modern requirements? Explain.
4. How does a corporation obtain capital?
5. Define preferred stock; cumulative preferred stock; common stock. Which would you rather own? Why?
6. What is a bond? What are the advantages of owning a bond? the disadvantages?
7. What is meant by par value? selling at a premium? at a discount?
8. Define capitalization. Find out the capitalization of a corporation in your town or county.

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CHAPTER VII

VALUE

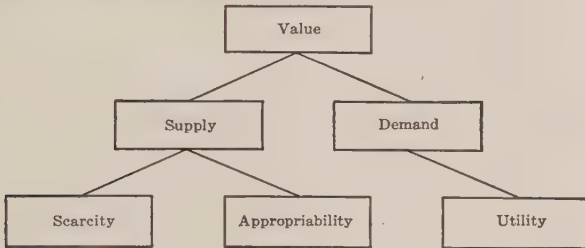
SECTION I. THE MEANING OF VALUE

Production is now carried on through the organization of specialists. We have subdivided processes into many operations. We have minute specialization within an organization. We have specialization by firms. One firm turns out farm machinery; another, inexpensive automobiles; another, meat products; another, breakfast cereals; another, yarn; and so on through a long list. Regions and countries may specialize, as the South in cotton and England in manufactured products. Obviously the people in these specializing groups are not producing the particular kinds of goods for their own consumption. They expect that their goods will be exchanged for those produced by other specializing groups.

In order for goods to be exchanged they must be comparable. They are compared as to value. Value is the basis upon which exchanges are made. In this chapter we will consider what value is and how it is determined.

The word "value" is used rather loosely in everyday conversation. We say that such and such a store advertises the best values, meaning bargains. Again we speak of some experience as a valuable lesson. What we mean is that the experience was helpful. Another sense in which the word is used is illustrated by the statement "whisky has no value to society," meaning that it is of no benefit. Again, it is said that ability to meet people easily is of great value to a politician, using the word value to mean assistance. Then we hear such phrases as "scheme of values," and "moral values."

When we speak of a society butterfly as having a different "scheme of values" from a housewife, we are trying to say that she desires or enjoys a different set of satisfactions from those most sought by the housewife. By "moral values" we understand ethical standards, standards of conduct, or the measure of worth by which spiritual rewards are determined. To the economist the word "value" has a meaning different from any of those we have just considered.



In the economic sense value means power in exchange. A pound of gold has more power in exchange (that is, to command other goods) than has a pound of cotton. We say that gold has more value than cotton. But why does gold or cotton have value — this power to command other goods in exchange for itself? To have value a thing must first be useful. Unless a thing have utility it can have no value. There must be the power to satisfy human wants, else human beings will have no desire for the thing. Eggshells have no value because they have no utility. Old or discarded clothing has little value, because it is of little use to anyone. Green persimmons have no value because they have no utility.

Again, a thing must not only have utility but must also be scarce in order for it to be valuable. Air is useful. Without it animal life would disappear. But air ordinarily has no value in the economic sense. That is, it has no power in exchange. Why is it that air, useful as it is, has no value, no

power to command other goods in exchange? Because it is not scarce. There is such an abundance of it that it is a free good. Its utility is limitless, but its supply is also without limit.

A third requisite to value is appropriability. A thing may have great utility and be scarce and yet have no value, because of the impossibility of appropriating it to the satisfaction of human wants. For example, London does not have enough sunshine during the winter. Many people there would gladly pay for sunshine if it could be conveyed to them. Though there is a great superfluity of sunshine in other parts of the world, it is impossible to appropriate it and transfer it to be used in dispelling the gloom of a winter day in London.

QUESTIONS

1. Define "value" as the word is used by the economist.
2. What are the essentials of economic value? Illustrate.
3. Is a pound of gold more valuable than a pound of flour? Why?
4. What is meant by a sign in a shop window, "Value, \$10; price, \$6"?

SECTION 2. THE LABOR THEORY OF VALUE

We have pointed out that value is the result of three variables: utility, scarcity, and appropriability. We may also say that value depends on supply and demand. Scarcity and appropriability have to do with supply, while utility has to do with demand.

The early economists largely confined their analyses of the causes of value to a study of supply. Supply is the amount of a good which is offered at a given price. Units of the good not offered do not constitute a part of the supply. Apples never gathered, apples never brought to market, do not make

up a part of the supply of apples which influence the value of apples. When Russia was cut off from the western world through the fortunes of war, her people did not stop growing wheat. But the wheat could not be put into the world market and constituted no part of the supply which helped to fix the price of American wheat. Australia during the recent war produced millions of bushels of wheat, which could not be exported for lack of ships. The vast quantities of wheat which filled the storehouses of that country did not make up a part of the supply of grain for western Europe.

When the division of labor was simple and there was little power machinery and not much trade, manual labor appeared the one important element in the cost of production. Out of such a situation there developed the Labor Theory of value. Among the exponents of this theory were three great economists — Adam Smith, Ricardo, and Karl Marx. They argued that the value of a thing, in the long run, depends on the amount of labor embodied in it. To quote Smith: "It is natural that what is usually the produce of two days' labor or two hours' labor should be worth double what is usually the produce of one day's or one hour's labor." Ricardo referred to labor as being "the foundation of all value, and the relative quantity of labor as almost exclusively determining the relative value of commodities." Marx said: "The value of a commodity is determined by the quantity of labor expended during its production."

Those who held this theory realized that a commodity must have utility before it can have power to command other commodities in exchange, but they did not see that the utility of a commodity has anything to do in fixing the amount of its exchange value. Still the theory made a strong appeal, and does yet for that matter, because it seems just and fair that the value of a thing should be fixed by the trouble or labor involved in making it. But as appealing as the theory may

be, it is open to so many objections that it cannot be accepted as an explanation of value.

One difficulty is found in the phrase "amount of labor." There is no single well-understood meaning of the word "labor." If the exponents of the theory have in mind manual labor, they are ignoring the efforts of the inventor and of the organizer. Then, too, there are among manual laborers both skilled and unskilled, the efficient and inefficient. To follow one of Marx's explanations that the quantity of labor is measured by its duration would be to say that the longer the time workmen put in on a commodity the greater its value. In such a case it would be easy to increase value by employing the least skilled to perform the processes of manufacture.

QUESTIONS

1. In what kind of society should you expect all economic goods to exchange for each other in proportion to their labor cost? (H.)
2. Criticize the Labor Theory of value.

SECTION 3. THE COST OF PRODUCTION THEORY OF VALUE

The Cost of Production Theory of value differs from the Labor Theory in allowing for other elements besides labor in the cost of producing a commodity. This theory arose when methods of production became more complicated, and after power machinery had come to be used extensively. Though factories were still comparatively simple, and though the costs of products could be with some difficulty approximately computed, it was realized that labor alone was not a sufficient explanation of value — that there were other items of cost to be considered along with labor.

"The cost of production, together with the ordinary profits, may be called the necessary price or value of all things made by labor and capital."¹ Mill sought to support this

¹ J. S. Mill, *Principles of Political Economy* (Laughlin Edward), p. 260.

conclusion by observations on the effects of competition. If the value of a commodity should rise above its cost of production, profits would increase to where they would attract others, furnishing more labor and capital, into the business. Competition among the producers to sell the increased supply would force value back to the cost of production. If, on the other hand, the value of a thing should fall below the cost of production, some would withdraw labor and capital from the business, the supply would be lessened, there would be less competition among the sellers of the product, and the value would again tend to conform to the cost of production. Through the operation of free competition value would always tend to equal the cost of production. If we should object that the cost of production varies among different producers, we should be told that value depends on the cost of production under the most disadvantageous existing circumstances. That value is determined by cost to the marginal producer. For example, if it be necessary to sow some poor land in wheat in order to produce as much wheat as is wanted, the value of wheat would be the cost of producing it upon the poorest land sown in wheat.

Any theory that attempts to explain value only from the side of supply confronts difficulties. First a theory attempting to explain value from the supply side ignores the possibility of misdirected expenditures. A railroad was induced by a new mining corporation to build a branch line to the proposed mine. About the time the branch was completed it was discovered that the chemical constituency of the ore was such as to make its treatment too expensive. The railroad had expended \$400,000 in building a branch line over which it never hauled a ton of freight. The branch line was without value as a railroad, even though it had cost \$400,000 to construct it. In the second place, the Cost of Production Theory (like the Labor Theory) does not account for changes

in the value of a thing after it has been made. The cost of production is a definite and fixed sum after it has been incurred. If cost of production explained value, then the value of a thing would never change but would always be equal to what it had cost to make it. But the fact that a farmer produces cotton at the expense of \$50 per bale does not mean that a bale of the cotton will always have a value of \$50. In fact, as in 1914, the movement of goods across the ocean may be interrupted and the value of a bale of cotton shrink to \$20. A merchant who at the end of the season finds himself with a big stock of some special style of goods cannot rely upon cost of production to fix the value of such goods. In the third place, the Cost of Production Theory does not explain the value of scarce goods. It costs no more to support a painter of genius than it does to support a dauber, yet a picture by the one will have great value while one by the other will have little if any value. There are many tenor singers whose education cost as much as that of Caruso, but many of them cannot sell their services for very much, while he exchanged his for a fortune.

It is true that a retail merchant usually adds a percentage to what the goods cost him. But the price at which he bought the goods may have varied from what they cost the jobber or the manufacturer to deliver them to him. And this same retail merchant may have to "mark down" a part of his stock before he can get rid of it.

There are still other difficulties in the way of accepting cost of production as an explanation of value. The phrase "cost of production" is not always interpreted to mean the same thing. It may refer to direct costs or to direct costs plus standing charges. A difficulty in computing cost of production is due to the fact that some costs in many organizations are indirect. In establishing a factory investments must be made in buildings and in machinery. The interest upon such

investment is a part of the fixed charges against the business. The interest accrues at the current rate, regardless of whether the plant is utilized to full capacity, to part capacity, or not at all. How much of this interest is chargeable to a particular unit of the product? The greater the number of units, the less the amount of fixed charges which may be imputed to a given unit. If a newspaper has equipment for turning out an edition of 50,000 copies, it will be to its interest to increase its circulation up to 50,000 copies. If its circulation be only 30,000, interest on an investment and overhead expenses sufficient to put out 50,000 copies of the paper must be borne by the 30,000. By adding new subscribers the indirect costs chargeable to each single copy will be reduced. But this may not hold if the circulation be increased beyond 50,000. In the event of increasing circulation beyond the capacity of the plant new equipment would have to be installed, and the indirect costs added by reason of such increase in investment might be greater than the income from the added circulation. A steel mill would not, except in emergencies, sell steel rails for less than the costs involved by reason of manufacturing those particular rails, such as the cost of ore, fuel, and labor. The management of the mill would also have other costs, such as interest on the investment in the plant, taxes, and salaries of permanent officers. They would try to sell the rails for enough above the direct costs to enable them to apply a part of the return from the sale to the constant costs. Cost of production in some cases may represent merely the direct or prime costs, in others both direct and constant costs, and in still others direct and only a part of the constant costs. Then, too, cost of production varies with circumstances. The cost per unit sometimes depends upon the quantity of the output, sometimes upon an advantage in access to materials or in a monopoly upon a process, and sometimes upon the efficiency of the organization. Cost of production then varies

from one locality to another, from one plant to another, and from time to time within the same plant.

Again, given expenses may result from the production of two or more products. A farmer may plant melons in the cotton rows. How should you separate the cost of growing the melons from the cost of raising the cotton? Sheep may be grown by one who sells the wool and also sells some of the sheep for mutton. In such case would it be easy to distinguish the cost of producing wool from the expenses of putting mutton on the market? A cook tends a small garden for her employer. What is the cost of raising the vegetables? You can think of other illustrations of joint cost.

Again, it is often impossible to calculate the cost of producing a given piece of work. Who can say how much it costs a lawyer to render an opinion for his client? Who can determine the cost to a physician of writing a prescription? How much does it cost a railroad to carry a pound of butter from one station to another? How much does it cost a steamship company to carry a passenger in a stateroom which otherwise would not be taken? In case of the doctor, we will say that after finishing high school he spent four years in college, four years in a medical college, and two years as an interne in a hospital, and that during ten years of active practice he had acquired much skill as a diagnostician. A laborer, we will suppose, accidentally swallowed poison and would have died but for this physician, who after a brief examination prescribed the correct antidote. The laborer paid a fee for the services of the physician. What determined the value of those services? Was it the cost of producing them? Who can say what it did cost the physician to diagnose the case and successfully apply the remedy?

Clay points out¹ that those producers who have any influence on the fixing of price usually do one of three things.

¹ Henry Clay, *Economics for the General Reader*, p. 271.

First, they may work to order. The producer takes orders without permitting the customer to know the cost of production, and he solicits orders at prices well above the expenses of making and delivering the goods. In the second place, a producer may fix the highest price for his goods that he thinks he can get, and vary it from time to time, even offering his goods to different customers at different prices. The street vender may alter the prices of his vegetables or fruit several times within the course of a half day. Third, the producer may set his price above the cost of production and then manufacture as much as he thinks he can sell at that price. A publisher, for example, will try to estimate the number of copies of a book he can sell at a predetermined price. But in none of these cases do the producers seek to fix the price at the cost of production. They try to avoid taking less than or as little as such costs, but they seek all they can get.

QUESTIONS

1. State the Cost of Production Theory of value. How does it differ from the Labor Theory?
2. Criticize the Cost of Production Theory of value.
3. How have the advocates of the Cost of Production Theory of value measured costs — by taking cost of production to the most efficient producer, the least efficient producer, or the producer of average efficiency? Discuss (H.).
4. What are the costs of building a house?
5. Will cost of production explain the value of an old violin? of a Van Dyck picture?

SECTION 4. INFLUENCE OF MONOPOLY UPON VALUE

Before leaving our study of supply let us give attention to the influence of monopoly. Supply as it affects value means the amount actually offered for sale. It is not the amount that could be offered, but the amount that is offered. Cost of production determines how much may be offered.

Conditions of control determine how much is offered. The extremes of these conditions of control are free competition and monopoly. Under free competition the value of a thing will tend to coincide with its cost of production. Perfectly free competition, however, rarely exists. It is as uncommon as is complete monopoly. The great majority of businesses fall between the extremes of perfectly free competition and of absolute monopoly.

Under monopoly not all is offered for sale that could be offered. But the monopolist offers just such an amount, all things considered, as will yield to him the greatest profit. He does not control all the conditions of demand. He cannot require that his commodity be purchased. But he can study the demand, and having ascertained it he may then fix the supply of his commodity with reference to the demand so as to obtain the greatest net revenue for himself. This he does ordinarily through trial and error. He fixes a price for his goods and tries it out on various quantities offered from time to time. He will change his prices as time passes, ever seeking just that price and that quantity at the price set which will yield him the greatest net income.

If the commodity be something which it costs nothing to produce, then how much the monopolist would offer would depend upon the elasticity of the demand. If the demand were inelastic and just so many units would be taken at any price, he would then offer that number of units which would yield the greatest revenue and throw away the remainder. If the demand were elastic, by lowering the price from what those most desiring the commodity would be willing to pay he could perhaps dispose of the entire supply for a larger sum than he could realize upon any portion of the supply.

But not many goods are found ready for sale without cost to the owner. A monopolist may produce his goods at a constant cost. In such a case, the conditions of supply being

fixed and easily ascertained, he has only to study the conditions of demand and determine the price that will yield him the greatest returns. Under constant costs that price is apt to be relatively low.

If the monopolist produces under conditions of decreasing cost, then his problem becomes very complex, for he must not only study the conditions of demand, but also the costs for different amounts of production. Where the demand is elastic and costs tend to diminish with increase in output, the lower price will ordinarily yield a greater profit than the higher price. This helps to explain the low price of kerosene oil and of Ford cars. But if the demand be inelastic, monopolized goods produced under conditions of decreasing costs will usually be limited in output and sold at a relatively high price. This is illustrated by books that are devoted to technical subjects and will be read by few persons. The cost of producing such books in large numbers would be less per volume than for a limited edition. But under such conditions a limited edition would be published and sold at a high price. We are not apt to find monopoly conditions where production is carried on from the start at increasing cost. If monopoly shows itself in such industries, prices will certainly be high though demand be elastic.

There is still another possibility under monopoly. And that is to put the commodity on the market in installments, first reaching those willing to pay a high price and then coming down in price as each grade of consumers is supplied. Or the commodity may be classified and different prices set for different classes. A new book may be offered at a high price in attractive binding, at a lower price in ordinary cloth binding, and lower still in paper. While there would be some difference in the costs of preparing the different bindings, the prices ordinarily would be out of proportion to such costs. The manufacturers of phonographs seek to absorb what

would otherwise be the consumer's surplus of many purchasers by putting out instruments at different prices. The phonograph that retails for \$900 perhaps reproduces the tones more perfectly than the one that sells for about \$30. It is a more pretentious piece of furniture. But the difference in the cost of manufacturing the two instruments is nothing like the difference between their retail prices. Some persons will pay \$900 rather than be without a phonograph. By making a little more pretentious cabinet, by expending a little to give the impression of elegance, an instrument can be sold to such persons for \$900 which reproduces the records very little better, if any, than the less expensive machine. So they are graded in price and brand from \$30 up in order to drain off the consumer's surplus from many who would otherwise buy the less expensive and more widely demanded brands. This practice is rather common among those who approach monopoly control through patents, secret processes, or similar means. It may be observed through quite a list ranging from manufacturers of soap to manufacturers of automobiles.

QUESTIONS

1. Define "monopoly." Give several illustrations.
2. Why may a monopolist make more profit than competing producers?
3. Can a monopolist charge as much as he pleases for his product? What determines the point at which the monopoly price tends to settle?
4. Suppose a monopolized article is produced under conditions of constant cost. What price policy will the monopolist adopt if the demand for the article is (1) elastic? (2) inelastic? (D. and D.)

SECTION 5. THE MARGINAL UTILITY THEORY OF VALUE

We have been examining the Labor Theory of value, and the Cost of Production Theory. Both of these theories

approach the value problem from the side of supply. We have found these theories inadequate. Sellers dispose of their goods not at what they cost but at what they can get. The consumer cannot be forced to take goods against his will. His decision has influence upon price. He will pay what he believes the article is worth to him. The seller tries to see to it that he pays as much as that. The buyer purchases a thing because he thinks it will be useful to him. The fact of utility was taken for granted in the other theories.

In view of the inadequacy of cost of production as a solution of problems of value, modern economists have offered the Marginal Utility Theory in their search for a more satisfactory explanation. The Marginal Utility Theory of value approaches the problem from the side of demand.

Demand means the quantity of a commodity which buyers stand ready to take at some specific price. Demand is not to be confused either with the amount wanted or with the amount actually taken. It is what buyers stand ready to take at a given price. That is, the buyers must have the purchasing power in hand which they are ready to exchange for the commodity at the specific price quoted. Mere desire does not constitute demand. One may desire most intensely a trip abroad without being taken into account by those who provide means of transportation. A street waif gazing wistfully into a show window of a bakery does not move the baker to provide additional cakes in order to satisfy the boy. Before one can stand ready to take a thing at a price his desire must be coupled with purchasing power. The determinants of demand are (1) desire, (2) purchasing ability, (3) the number of persons affected. Demand is more difficult to ascertain than is supply. The conditions of supply may ordinarily be set forth with more definiteness, certainty, and accuracy than can the conditions of demand. It is easier to calculate costs of supplying a thing than it is to gauge the

strength of the desire for it, to estimate how many people have such desire, and how the strength of the desire varies from person to person, and to classify those having desire according to their purchasing power.

The determinants of demand are all variables. Desire is the most varying of all. Desire may, in fact, be created by suggestion. This accounts for the numerous advertising campaigns. Desire is due to many causes, and these are often obscure. Tradition, custom, fashion, fancy, the example of others, — many are the sources of desire. Purchasing power is another variable. The incomes of people are not equal. Many persons are compelled to choose a very few of the things they desire because they have not the means to pay for all they want. The number of persons affected also changes. For example, in 1899, 860,000 bicycles were sold. In 1902 only about 100,000 bicycles were sold. The number of persons standing ready to take bicycles greatly decreased within those three years.

Those who stand ready to take a thing at one price are often different in number from those who stand ready to buy it at another price. And the amount that buyers will take at one price is often different from what it would be at another price. This fact accounts for what we call the "demand schedule." Demand is conditional upon a particular price stated or implied. Generally speaking, the amount of demand varies inversely though not proportionally to price; that is to say, the lower the price the greater the demand, the higher the price the smaller the demand.¹ This may be illustrated by a series of conditional propositions:

The demand would be for 8,000,000 bales of cotton if the price were 20 cents a pound.

The demand would be for 9,000,000 bales of cotton if the price were 19 cents a pound.

¹ See F. M. Taylor, *Principles of Economics*, p. 258.

The demand would be for 10,000,000 bales of cotton if the price were 18 cents a pound.

The demand would be for 11,000,000 bales of cotton if the price were 15 cents a pound.

The demand would be for 12,000,000 bales of cotton if the price were 13 cents a pound.

The demand would be for 13,000,000 bales of cotton if the price were 12 cents a pound.

The demand would be for 14,000,000 bales of cotton if the price were 10 cents a pound.

The demand would be for 15,000,000 bales of cotton if the price were 8 cents a pound.

The demand would be for 16,000,000 bales of cotton if the price were 6 cents a pound.

This series of propositions illustrates a demand schedule. We may illustrate by the diagram on page 102.

The supply schedule is just the reverse. The supply of a commodity is the quantity of it which sellers stand ready to dispose of at some specific price.¹ A supply schedule analogous to the demand schedule is given on page 104.

The supply would be 16,000,000 bales of cotton if the price were 20 cents a pound.

The supply would be 15,000,000 bales of cotton if the price were 19 cents a pound.

The supply would be 14,000,000 bales of cotton if the price were 18 cents a pound.

The supply would be 13,000,000 bales of cotton if the price were 15 cents a pound.

The supply would be 12,000,000 bales of cotton if the price were 13 cents a pound.

The supply would be 11,000,000 bales of cotton if the price were 12 cents a pound.

The supply would be 10,000,000 bales of cotton if the price were 10 cents a pound.

¹ Taylor, F. M., *Principles of Economics*, p. 268.

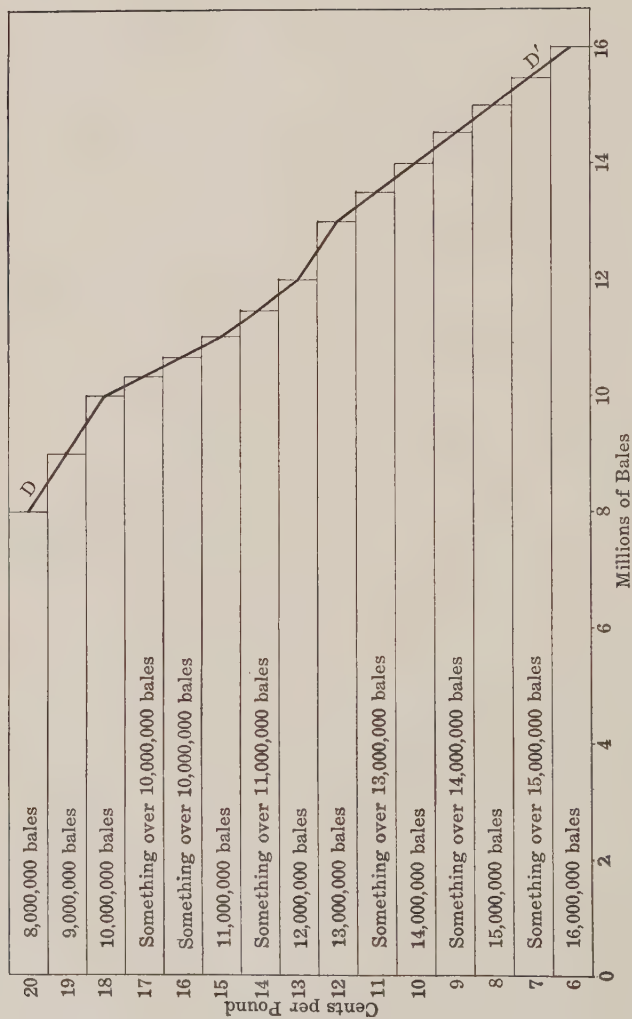


FIG. 1. DEMAND FOR COTTON

The line DD' , cutting the ends of the rectangles, represents the demand schedule

The supply would be 8,000,000 bales of cotton if the price were 8 cents a pound.

The supply would be 4,000,000 bales of cotton if the price were 6 cents a pound.

If Figure 1 be transposed upon Figure 2, we find the demand and the supply schedules meeting at B' (see Figure 3 on page 105). At B' there would be an equilibrium between the forces of supply and of demand

The lines SS' and DD' , drawn through the ends of the rectangles, may be said to represent the supply curve and the demand curve. Where these curves meet we have equilibrium between supply and demand. We have considered cost of production as the principal determinant of supply. Let us now turn to the marginal utility explanation of demand.

First we must give attention to the principle of diminishing utility. It may be stated thus: Successive doses of the same good give decreasing satisfactions; that is, yield diminishing utilities. You may select almost any commodity or service to illustrate this principle. One hat, for example, has great utility. A second hat has less than the first, but is useful. A third has still less utility, and so on until an additional hat becomes a bother.

Let us repeat, successive doses of the same good give decreasing satisfactions, yield diminishing utilities. If the doses be continued far enough, the point of satiety will be reached. Beyond the point of satiety further repetition of the dose (that is, further consumption of units of the good) yields no satisfaction. After reaching the point of satiety the utility of each additional dose or unit of the good becomes zero. One slice of bread may have great utility in preserving life. A second may be almost as useful as the first. But a continuous consumption of slices of bread would soon bring one to the point of satiety, beyond which the utility of bread for the time would be nothing.

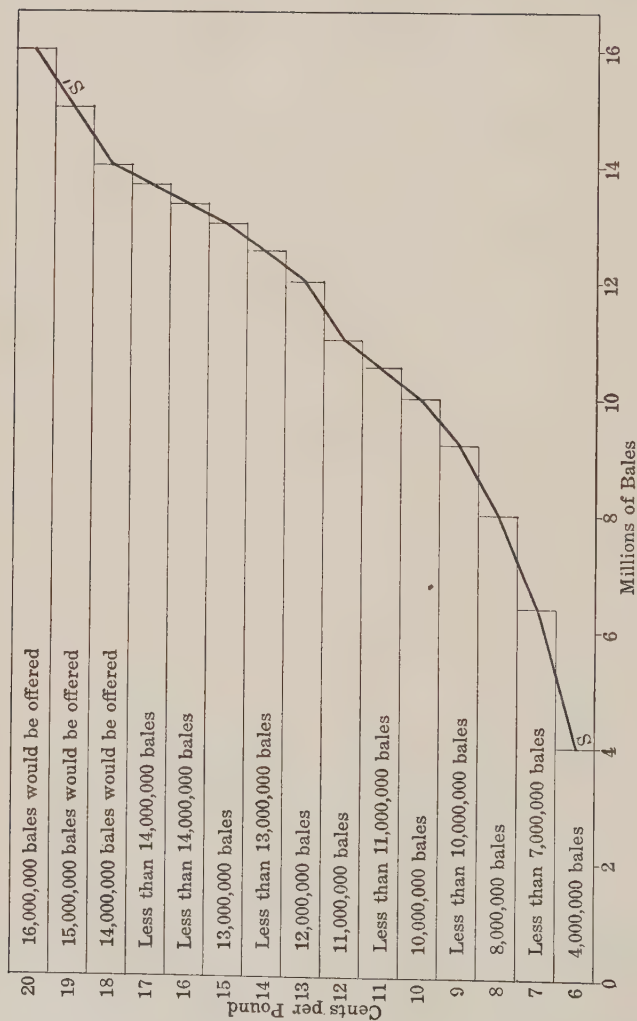


FIG. 2. SUPPLY OF COTTON

The line SS', cutting the ends of the rectangles, represents the supply schedule

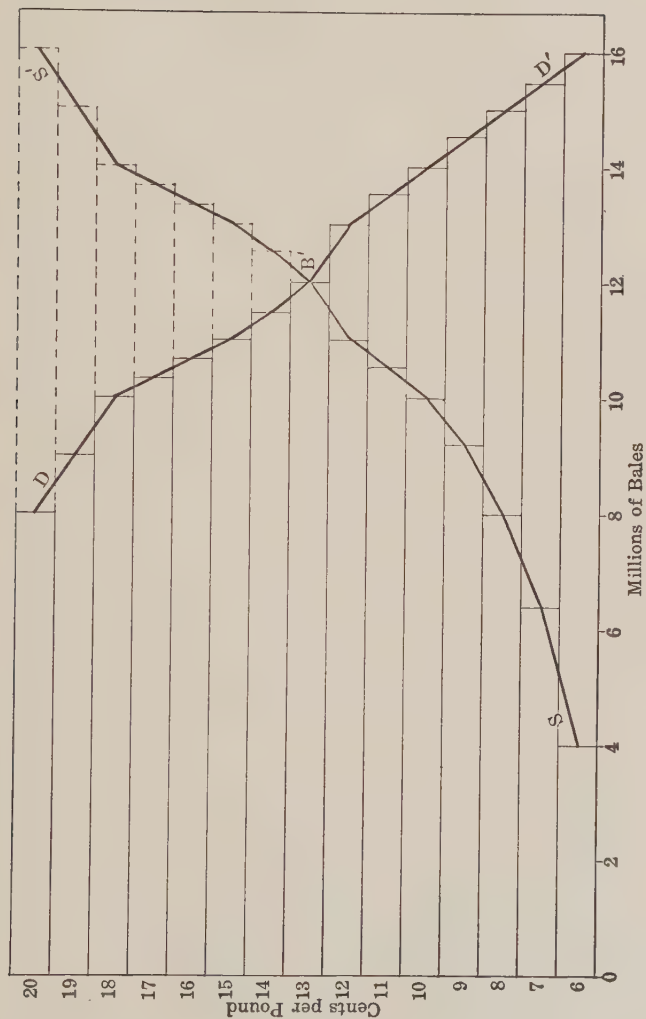


FIG. 3. DEMAND FOR AND SUPPLY OF COTTON

The lines SS' and DD' represent the supply and demand curves respectively

The fact of diminishing utility (that is, that enjoyments begin to pall after a time) enables us to understand that the utility of a thing is different at different times and to different persons. The value, though, may be the same for the last unit consumed as for the first. A very hungry person would perhaps pay \$10 for a sandwich rather than go longer without food. A person just up from dinner would not give 10 cents for a sandwich. Yet the value of sandwiches at that very moment might be 10 cents. The very hungry person would pay no more than he would have to pay. Perhaps there would be no one else so famished as he, and the vendor of sandwiches might not know about his predicament. There would be a number, perhaps, to whom sandwiches would have no utility. The number of sandwiches for sale and the number of persons for whom they would have utility at the moment beyond anything else that would cost 10 cents would be such that under competitive conditions the value of sandwiches would be fixed at 10 cents.

Suppose that three sandwiches would satisfy an individual for one meal. Let us say that for one sandwich, fresh and temptingly seasoned, he would pay 50 cents rather than go without. For a second he would pay only 30 cents, because it would yield less satisfaction than the first. For a third he would pay only 10 cents, because it would have much less utility at the time than the second had. Beyond the third he would not buy other sandwiches, because with three sandwiches the point of satiety in his case would be reached. The utility of all three as represented by what the hungry man was willing to pay would be indicated as follows:

The first sandwich	50 cents.
The second sandwich	30 cents.
The third sandwich	<u>10 cents.</u>
The total he would have paid for the three . . .	90 cents.

But the purchaser of sandwiches did not pay according to the utility of each sandwich to him. He paid for all three only according to the utility of the third or last sandwich he wanted. That is, he paid 10 cents each for the three. The three sandwiches were in the basket or on the counter of the seller with other sandwiches. The seller could not very well know just how much each individual would pay for only one sandwich, nor how much, if he had the power, he could get from each one for a second sandwich. The seller ordinarily is powerless to fix the price of each sandwich according to its utility to the particular consumer. He must offer sandwiches in bulk. Any one of the stock is exactly like the other. He could not charge different prices for units of the same stock at the same moment and to the same customer. He offers the entire stock at the price at which he thinks all will be taken. That will be the price represented by the utility of the last one that will be taken. If the utility of the last sandwich be 10 cents, the entire lot will be priced at 10 cents. That is, 10 cents is the price that measures the utility of the last sandwich. We speak of the utility of this last or final sandwich as the marginal utility. The marginal utility is the satisfaction got from the last unit of stock if the units be consumed in succession.

The economic value of a stock of goods is said to be determined by marginal utility and is very different from the total utility of the stock. The stock is enjoyed not as a whole but by portions. As the portions are consumed they yield lessening satisfaction. Economic importance is the satisfaction that depends not on the whole stock but upon any one of the units of the stock. The utility of the total supply of a commodity is very different from the utility of a given amount of it. But goods are enjoyed in given amounts — in units, let us say. It is the satisfaction afforded by any one of the units of the total supply that determines the economic importance of

every other unit of the whole. To illustrate, the total utility of air is infinite. But the utility of any one cubic foot of air is nothing. So the economic importance or value of air is negligible. The utility of the total supply of diamonds is something, but not nearly so great as the utility of the total supply of bread. But diamonds are relatively scarce. The utility of a diamond one carat in size is much greater than is that of a loaf of bread. The last diamond brought to market is of much greater utility than the final loaf of bread that is offered. The economic importance of a one-carat diamond is the same as that of any other stone of the same size and quality. The value of diamonds is high because the marginal utility of diamonds is high. The marginal utility is high because the stock is so limited that it is exhausted before the point of satiety is reached by the few with large means. The marginal utility of a loaf of bread is low and the economic value of bread is low. Bread can easily be supplied, so that it may be consumed to the point of satiety.

QUESTIONS

1. Explain the term "marginal"; the phrase "marginal utility."
2. Show how the price of oranges comes to be so many cents apiece.
3. Show how the actions of buyers may bring about changes in the marginal utility and in the price of a product. Could similar changes be brought about by the action of sellers?

SECTION 6. MARGINAL UTILITY THEORY FURTHER CONSIDERED

In the foregoing discussion we were not able to ignore supply. While utility is connected with demand, yet we cannot study the effects of utility in determining demand without some consideration of supply. As Alfred Marshall points out, supply and demand are to value what the blades are to

scissors. As we cannot have scissors without blades, so we cannot have value without supply of and demand for goods.

In discussing marginal utility we assumed that all persons have equal capacities for enjoyment, and equal incomes. As a matter of fact, both the tastes and incomes of people vary. In a competitive market, if the supply of goods should be increased it would be necessary to lower the price to where they would attract consumers with smaller incomes and with weaker desires for the goods. If there were few sandwiches in stock and many men calling for them, each of whom would be willing to pay 50 cents for one sandwich rather than go without it, sandwiches could sell for 50 cents each. But if the supply were increased, the price under competitive conditions would have to be set for the entire stock at the figure which would dispose of the last one. There would be competition between vendors of sandwiches on one hand and between buyers of sandwiches on the other, so that the entire supply would sell at the price necessary to dispose of the last sandwich.

Let us now consider how consumer's surplus results from diminishing utility and the fixing of value by the salability of the marginal unit. Consumer's surplus is the difference between the sum which measures total utility and that sum which measures total exchange value. The total exchange value is the price per unit multiplied by the number of units. The total utility we have already explained. In the case of the sandwiches, the difference between what would have been paid and what was paid is the consumer's surplus.

	PRICE THAT WOULD HAVE BEEN PAID	PRICE PAID	CONSUMER'S SURPLUS
First sandwich	50	10	40
Second sandwich	30	10	20
Third sandwich	10	10	
	90	30	60

There is a constant effort on the part of sellers to appropriate the consumer's surplus. They cannot sell their goods at a high price to those to whom they have a high utility, or who have wealth and are willing to pay high prices for small satisfactions, and at the same time make lower prices to induce the same persons to buy more units and to attract buyers with less means or those who do not care so much for the particular goods. While the prices at a given time for units of the same good will by competition between buyers and between sellers be the same, yet sellers are able by various means to make inroads upon the consumer's surplus. They may offer the goods at a high price at the opening of the season and come down as the season advances, finally putting the price so low as to suit the marginal buyers and to get rid of the stock. Or sellers may classify the units of a stock according to the way they are wrapped. They sell at a high price those put up in advance in convenient and attractive packages and sell at a lower price goods of the same quality offered in bulk and wrapped up after purchase. Another device is to vary slightly the quality and classify the units according to the slight variations in quality, charging much higher prices for some classes than for others. Soap-manufacturers are able to do this by using coloring matter and perfumes. They will offer their fancy toilet soap, each cake nicely wrapped, attractively colored, and perfumed, for say 50 cents a cake. The same soap with a little different coloring and perfume is offered at 25 cents, so as to tap the surplus of another stratum of consumers. The same soap with different coloring, and perhaps without any perfume, is offered at 15 cents, while a larger quantity of the identical soap without any coloring or special wrapping may be sold at 10 cents a cake. In these cases the seller seeks to appropriate what would otherwise be a consumer's surplus by seeking to persuade the different classes of consumers that they are getting goods of differing qualities.

Because of the limited capacities of individuals for enjoyment of goods, because of the law of diminishing utility, one person cannot get as much satisfaction from spending \$1,000,000 and consuming the goods purchased as a thousand men could get through the consumption of goods purchased with the same million dollars. The first utilities are the highest. After a few units of the most essential satisfactions additional units have lessening utility. The consumer therefore turns to other satisfactions and seeks a maximum of enjoyment in variety. The more varied one's interests, the more educated a person is, the greater his capacity for enjoyment. But one may be so wealthy that every known variety of pleasure may be exhausted, and like Rasselas in the Happy Valley he may find himself satiated. The very rich in search of variety go to many extremes and sometimes indulge in the most freakish forms of amusement. Because of the principle of diminishing utility the income of the community will not purchase as much utility if expended upon a few as if expended upon many. The rich can give up their tens of thousands with less loss of enjoyment than the average person would suffer through a loss of tens of dollars. There will be more of utility, more satisfaction, more enjoyment, in a country where incomes are fairly equal than in another country where the same aggregate incomes are less equally divided. Therefore, whatever makes for equality of opportunity, for equal chance to develop and to use one's powers, resulting in a more even distribution of the community's income, makes for an increase in the sum total of human happiness.

QUESTIONS

1. Show how supply affects marginal utility.
2. Does utility correspond to the price paid for an article?
3. Explain how consumer's surplus results from diminishing utility. What practical consequences flow from efforts to appropriate the consumer's surplus?

4. If all men possessed equal property and equal incomes,
(1) would the marginal utility of money be the same to all?
(2) would human happiness be greater or less? (D. and D.)

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CHAPTER VIII

MONEY AND CREDIT

SECTION I. BARTER AND MONEY

We have seen that by specializing men obtain a greater number of satisfactions for their wants than they otherwise were able to do. If a man is a specialist and renders one kind of service, as barbering, or makes one product, as safety razors, he must be able to exchange his services as a barber or his safety razors for other goods and services to meet his individual needs. If he wants meat, he has nothing to give for it except his services as a barber or his razors. Now it would be rather awkward for a barber to have to find a butcher who wanted a hair-cut before he could get a steak, or for a butcher to find a barber who wanted a roast before he could get a shave. It would be rather trying for the manufacturer of safety razors to have to find a grocer willing to buy a razor before the manufacturer could get sugar for his coffee. This direct exchange of one commodity for another we call barter. When the farmer's wife takes eggs and butter to the grocer and exchanges them for other goods, we say she has bartered for her groceries. Barter originally was the direct exchange of two commodities without comparing them with anything else. A bow was exchanged for a spear without comparing their values with that of something else, the value of which was well understood. Barter as now practiced involves the use of money as a standard of value. The farmer's wife and the grocer each priced their respective goods in terms of money, though no money changed hands. Originally barter was in the complete absence of money.

Barter is very inconvenient. If a man has a cow and needs a coat, a sack of flour, a plow, a toothbrush, an alarm clock, and a book, he must somehow divide his cow and find a dry-goods merchant wanting beef, and likewise a grocer, a hardware dealer, a druggist, a jeweler, and a bookseller. Because of the inconvenience of barter, men early adopted the plan of exchanging their services and goods for some commodity which others would be willing to accept in exchange for their goods and services. Soon the value of services and of goods came to be compared with the value of this commodity which all were willing to accept. That is to say, men adopted a device which we call money in order to escape the inconvenience of barter and to make easier the exchange of goods and of services. Money, then, has three principal uses: it serves (1) as a medium of exchange, (2) as a standard of value, and (3) as a standard of deferred payments. We express the value of other commodities in the terms of money; we say the price is thus and so.

Money's first function is to serve as a medium of exchange. The barber in the illustration above can sell his services for money to persons who handle goods he does not want. They can get the money by selling their goods to those desiring them. With the money received for his services the barber can buy what he most needs or desires and in the quantities best suited to his convenience.

A second function of money is that it serves as a common denominator to which the values of all other commodities may be reduced. We speak of this use as a standard of value. When we say a pair of shoes is worth \$10, we but compare the value of shoes with the value of money and state the value of the shoes in the terms of money. It is much more simple to say that a suit is worth forty dollars than that it is worth four pairs of shoes of a given brand. In our illustration of the farmer's wife exchanging farm products for groceries, the

grocer and the woman both used money as a standard of value by which they measured the value of their respective commodities.

A third function of money is that it serves as a standard for deferred payments. When a promise is made to pay in the future for something received in the present, the promise is made in terms of money. Both parties measure the value to be delivered in the future by the standard money.

Men have used many commodities as money. One of the most common among the ancients was cattle. Homer tells of armor's being priced in terms of oxen. So long was the ox a measure of value among the Greeks that when they believed a man was bribed to keep silent, they said, "He has an ox on his tongue." The Latin word for wealth or money, *pecunia*, was derived from an older Latin word, *pecus*, meaning "one of a herd" or "cattle." Our English words *fee* and *scot* (pay the scot) go back to Anglo-Saxon words for cattle. The Spartans used iron; the Japanese have used rice; in Central Asia cubes of tea have been used; the Indians used wampum; the Virginia colonists found tobacco the most convenient money; and on the frontier musket bullets and pelts have served as money.

QUESTIONS

1. What is barter? In what two senses has the word barter come to be used?
2. Could there be much specialization under a system of barter? Why?
3. Show how barter would hinder the development of exchange of goods.
4. What is money?
5. State the principal uses of money.
6. Make a list of commodities which have been used as money.
7. With the functions of money in mind discuss the use of tobacco as money in the English colonies.

SECTION 2. THE QUALITIES OF A SATISFACTORY MONEY

Gold and silver have supplanted all other commodities as money, especially among the more advanced peoples. Gold and silver, more nearly than any other commodities, have had the qualities of a satisfactory money. These qualities are:¹

- | | |
|-----------------------|-----------------|
| 1. Value | 5. Divisibility |
| 2. Stability of value | 6. Homogeneity |
| 3. Portability | 7. Durability |
| 4. Cognizability | |

Must have value. It has been found by experience that if a commodity is to be acceptable as money, it must have some use other than merely to make exchange easier. People will not give up their goods for money unless they are convinced that the money itself is worth as much as the goods they exchange; that is, they want the market value of the metal in the coins, if they should be melted down, to be equal to the market value of the goods they sell for money. Tin could be conveniently coined, and tin coins could be circulated as well as those made of silver or gold, if people would accept them. If a farmer has a bale of cotton, he may be willing to exchange it for five ounces of gold, if he is sure of the fineness of the gold, whether it is coined or not. He knows that he can get as much of other goods, such as clothing or groceries, for the five ounces of gold as he could for the five hundred pounds of lint cotton. Now suppose that the government should take a fancy to tin as a more convenient commodity to use as money than gold. Out of five ounces of tin we will say the same number and denomination of coins would be made as had been made from the gold. Would the farmer exchange his bale of cotton for five ounces of tin, even though this tin should be stamped as \$103.34, the same denomination

¹ See Seagar, *Principles of Economics*, p. 325.

as five ounces of gold? The farmer would demand instead of five ounces many pounds of tin, or such an amount as would exchange for the same quantity of goods as would a bale of cotton. Gold and silver are relatively scarce as well as useful. A small amount of either metal has considerable value as bullion. Consequently people will accept silver or gold as money because they know other people desire these metals and will likewise accept them.

Stability of value. It is not enough that the commodity used as money shall have value, but it is important that its value shall be steady. One of the functions of money is to serve as a standard for deferred payments or debts. Suppose a high-school graduate borrows money to attend college, promising to repay it within three years after receiving the Bachelor of Arts degree. Suppose wheat, for example, to be the money. We will say that when the student made the debt crops were good and wheat was plentiful, so therefore it took a thousand bushels to pay his expenses while getting an education. The year the student graduates we will suppose a drought and that short crops are made for the next three years. The student owes a thousand bushels of wheat. But wheat is very scarce, and it requires three times as much to obtain it as when the student was borrowing. By such a sudden fluctuation in the value of wheat the student would be required to pay back three times as much as he borrowed. Or it might be that the student borrowed when wheat was dear, and was able to repay during good harvests when it was plentiful and much cheaper than when borrowed. Gold is not subject to such violent fluctuations. Gold does change in value from time to time, but very slowly as compared with other commodities. The existing supply of gold is the result of accumulations through the ages. Unlike wheat or cattle, it is not soon used up, leaving the new supply to constitute the entire stock. The new supply of gold added each year forms a very small

fraction of the total sum which has been saved through the centuries.

Portability. Gold has great value in small bulk. A man can carry about sixty pounds on his back. Sixty pounds of paper is worth about 60 cents; of coal, about 30 cents; of corn, about \$1; of wheat, about \$1.25; of wool, about \$12; of coffee, about \$25; of raw silk, about \$300; of silver, about \$900; and of gold, \$14,882.¹

It is seen that gold is convenient as money because of the great value which can be transferred by sending small bulk from one place to another. For 1 per cent of its value a quantity of gold may be sent around the world, while it would take from 15 to 50 per cent of the value to ship the same weight of wheat.

Cognizability. Gold and silver are easily recognized. Their weight, their color, and their ring enable one to tell them from other substances. It is therefore difficult to counterfeit them.

Divisibility. Gold is divisible into threads, strips, and the like. But, what is of more importance, if a piece of gold bullion be divided into one thousand parts, the gold has as much value in a thousand bits as it has as one lump, and each bit is worth one-thousandth part of what the ingot was worth. If cattle be the money, the ox is destroyed if divided. If beaver skins be the money, they too lose in value if divided. The perfect divisibility of gold and silver makes them suited for money, for coins of any size may be minted.

Homogeneity. This quality is related to divisibility. An ounce of gold is an ounce of gold whether it be taken from a large piece of bullion or whether it be made up of many particles, whether it be mined in Alaska or in Texas. Gold taken from the mines of California in 1849 was just like the gold mined in the days of Abraham or that which is now being taken from the mines in South Africa.

¹ The prices for all of these except gold fluctuate from time to time.

Durability. Gold and silver resist almost every combination, with water, air, or any other substance. Since they will not combine with other substances they retain their identity. Most other forms of wealth soon perish or change. Gold and silver do not wear from handling. It has been estimated that a gold coin may circulate eight thousand years without wearing out. This durability is of tremendous importance, for it makes it possible to coin the same bit of metal over and over again and to pass it down the ages as a part of our ever increasing money supply.

QUESTIONS

1. What commodities are now generally used as money? Why?
2. State the qualifications of a satisfactory money. Discuss and illustrate each.
3. "Any commodity in general use will serve possibly as a medium of exchange." Can you think of any commodities now in general use in this community of which this statement is not true? What commodities other than gold and silver might serve satisfactorily as mediums of exchange? (D. and D.)

SECTION 3. COINAGE, LEGAL TENDER, AND GRESHAM'S LAW

Coinage. When the government or some accredited agent of the government places a stamp upon a piece of metal certifying its weight and fineness, the process is known as coinage.¹ Coinage involves stating and guaranteeing the weight and quality of a metal to save the trouble of weighing and testing it every time it is used in exchange. Governments have taken over entirely the business of coining; that is to say, the government maintains a monopoly of coining. Metal stamped by the authority of the government assures the public as to the fineness and the weight of the metal in the coin. The coin is stamped on both sides, and its edges are milled to prevent clipping metal from it. Metals were

¹ A. T. Hadley, *Economics*, p. 184.

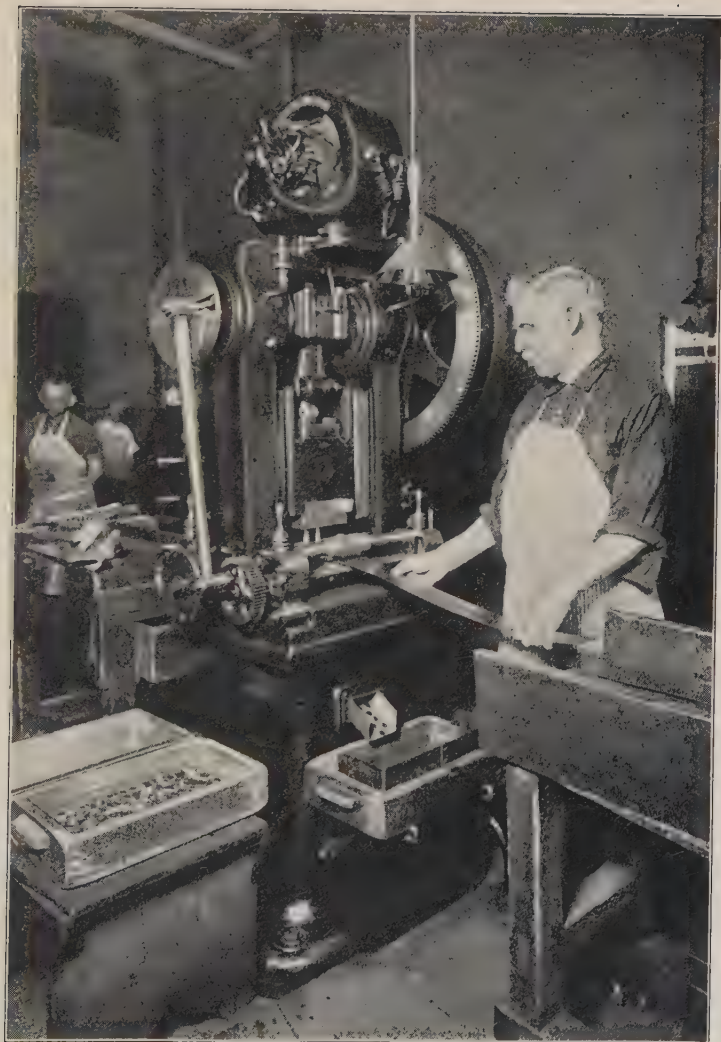
formerly measured by weight; the "pound" was a pound of silver. But weighing bullion was very unsatisfactory. There might be something wrong with the scales, then the bullion might be mixed with or spread over some baser metal. It was to prevent fraud and inconvenience that coining came into general usage.

Governments have charged the owners of bullion for coining it. They sometimes made a profit; that is, they took more bullion than they gave back in the coins. Such charges are called seigniorage. Where the government makes a charge for preparing the metal for coining just sufficient to pay the expenses but not enough to make a profit, such a charge is called brassage. The leading commercial countries do not now make any charges for coining gold.

The American dollar is composed of 23.22 grains of gold; that is, one ounce of gold will make 20.67 dollars.

Legal tender. The name legal tender is used for all forms of money which the law declares must be accepted in discharge of obligations. Gold coins and silver dollars are legal tender for any amount in the United States. Half dollars, quarters, and dimes, called subsidiary coins or fractional currency, are legal tender for only five dollars. Nickels and one-cent pieces, called token money, are legal tender for only twenty-five cents.

Gresham's Law. A finance minister of Queen Elizabeth stated a principle which has taken his name and is spoken of as Gresham's Law. "In every country where two kinds of legal money are in circulation, bad money always drives out good." It seems odd that bad money should circulate, while the more valuable money is taken out of circulation. Do not people always desire the better of two articles? If you are given your choice between a hat with a hole in it and one that is whole, you will have no difficulty in deciding which you want. If one has a choice between a decayed apple and one that is



MAKING GOLD PIECES IN THE UNITED STATES MINT

When in operation this machine turns out four hundred and fifty twenty-dollar gold pieces a minute

sound, the latter will be taken, and the same thing happens in the case of money. Give a man a choice between a counterfeit and a genuine coin, and he will take the genuine coin. Give a man the choice between a coin worth less than its face value and one of the same denomination worth its full face value, and he will choose the more valuable coin. If one has a silver dollar which is worth only seventy-five cents, in spite of its being named a dollar, and a gold dollar worth one hundred cents, one will seek to pay his debts with the silver dollar and keep the more valuable gold coin. If the bad money be legal tender and must be accepted in payment of obligations, then why should one give the more valuable away and keep the less valuable? When it is a question of which we will keep for ourselves, we will keep the better money; when it is a question of passing money on to another in payment of obligations, it is human nature to pass on the poorer or cheaper money and to keep the more valuable. This explains why the bad money remains in circulation: everybody wants to get rid of it, and passes it on to the other fellow.

But what becomes of the good money? A part of it is hoarded. When people put money away for a rainy day it is natural to try to save for future use that which will have certain value when wanted in the future. Then much of the good money is exported from the country. Foreign traders will not take the bad money. The government has no power to compel foreigners to accept the bad money as legal tender. The foreigner demands good money. To satisfy him and to pay for the goods which he furnishes, the good money must be given up. Again, if the bullion in a coin is worth more in the market as bullion than the denomination of the coin calls for, the coins will be sold by weight: that is, treated as ingots rather than as money.

QUESTIONS

1. Define coinage. Why is it necessary?
2. What is seigniorage? brassage? free coinage?
3. Define the American dollar. What is meant by legal tender?
4. State Gresham's Law. Illustrate from the financial history of the United States.
5. Is it justifiable discrimination to make only certain kinds of money legal tender?

SECTION 4. THE SINGLE STANDARD AND BIMETALLISM

The operation of Gresham's Law makes it advisable for a government to have but one standard of value. Money is accepted not merely because it is legal tender — that is, may be offered in payment of obligations — but because it has value as a commodity. The gold in a twenty-dollar gold coin is worth as much for bullion — that is, melted down — as it is in the form of a coin, with the government stamp upon it. The value of other commodities is stated in terms of the commodity used as money. That is to say, money is the common denominator to which the values of all other commodities are reduced. If there be one commodity used as the standard of value, then prices will always be quoted in terms of that commodity. If gold be the money, the prices will be the result of comparing the value of other commodities with the value of a given quantity of gold; as, for example, with 23.22 grains of gold, in this country called a dollar.

A country may, however, use two commodities as money, each being used as a standard of value. In such a case prices would be quoted in the same terminology. In our country prices would be in dollars and cents. But a dollar would be either a certain amount of one commodity or a different amount of the other commodity. For example, the United States Congress has defined a dollar as 23.22 grains of gold or 371.25 grains of silver. If the value of these two metals should

remain unchanged, and one owed a debt of one hundred dollars, it would make no difference whether he gave in payment 2322 grains of gold or 37,125 grains of silver, for in either case it would be one hundred dollars.

The coinage ratio of the metals was fixed at 16 to 1 plus; that is, it took about sixteen times as much silver as gold to make a dollar. But the value of gold and silver fluctuates from time to time. When Congress fixed the coinage ratio at 16 to 1, the market ratio was also about 16 to 1;¹ that is, one could go into the market with a pound of gold and exchange it for sixteen pounds of silver, or he could go into the market with sixteen pounds of silver and exchange it for a pound of gold. Suppose a more rapid increase in the supply of silver relative to the demand for it than in that of gold. The market ratio, instead of remaining at 16 to 1, might change to 20 to 1; that is, in the market it would take twenty pounds of silver to buy one pound of gold, or the owner of a pound of gold could exchange it for twenty pounds of silver. If after the market ratio of the metals reached 20 to 1, the coinage ratio remained 16 to 1, what would happen? A man having both gold and silver coins would give the silver in payment of his obligation and would keep the gold, for a gold dollar in the market would buy enough silver bullion to equal in weight $1\frac{1}{4}$ the amount of silver in the silver dollar. That is, with \$100 in gold one could buy enough silver bullion to make, when brought to the mint and coined, \$125. So if a man owed \$125 and had in his possession only \$100 in gold, he could by buying silver and having it coined pay off his debt in full. Merchants would take notice of the change in the market ratio of the two metals, since the coinage ratio was fixed. A merchant willing to sell a yard of silk for a gold dollar would ask \$1.25 if silver were offered in payment. Shoes valued at \$8 in gold would be fixed at \$10 in silver. Silver being the

¹ To be exact the coinage ratio referred to in the text was 15.98 to 1.

cheaper money, everyone would want to pass it on — to give it in payment of taxes, of debts, and to get rid of it, while the gold would be kept as the more valuable. Gold would be used in paying foreigners, whose goods we would buy. Gold would, in obedience to Gresham's Law, disappear from circulation, and silver would be in common use as the circulating medium.

From what has been said one might expect the single standard to have been the rule. As a matter of fact it is a modern development, and bimetallism has a much longer history.

The concurrent use of two metals as money is called bimetallism. It is an effort to treat the supply of specie as if gold and silver constituted a homogeneous mass. For centuries this was done. Only during the nineteenth century did silver lose its place. In western Europe the double standard, under which both gold and silver were freely coined, was displaced by the single standard as one of the changes growing out of the Industrial Revolution. Until the necessities of our present complex business arrangements required the gold standard, anyone owing silver bullion could bring it to the mint and have it coined in any amount; likewise, one owing gold bullion could have it made into coin. A debt could be paid in either gold or silver. Both were legal tender; both were freely coined.

In 1792 the United States, following what had long been the accepted practice in Europe, adopted the double standard with its essentials: free coinage and full legal tender. When, eleven years later, France established her system of decimal coins, she continued the double standard as the normal system. In 1816 England adopted the gold standard. France did not stop the free coinage of silver until 1873. The other members of the Latin Union¹ soon followed in limiting the

¹ France, Belgium, Switzerland, Italy, and Greece constituted the Latin Union.

coinage of silver. In 1878 coinage of silver five-franc pieces was stopped, and bimetallism in the Latin Union was at an end. In the United States silver had been undervalued in the system of coinage adopted in 1837 and gradually disappeared from circulation. With the great discoveries of gold in 1849 and the years that followed, gold completely supplanted silver as the circulating medium. So complete was the disappearance of silver that in 1853 Congress provided for the subsidiary silver coins: half-dollars, quarters, and dimes. A half-dollar contained 172.8 grains of silver, whereas a dollar contained 371.25 grains; that is, two half-dollars contained less silver than one dollar. This removed the temptation to melt down the coins. Silver in the dollars being undervalued, silver dollars could not circulate. Congress deliberately overvalued the silver made into subsidiary coins so that they would remain in circulation. They circulated at par because they were redeemable in gold. In 1873 Congress dropped the silver dollar from the list of coins. No one took any notice of the omission, because silver dollars had not circulated within the memory of that generation. Bimetallism ceased in 1873 to be provided under the law in this country. With the discovery of vast quantities of silver, and amidst the discontent of the long depression that followed a severe panic of 1873, people began to demand more money and the restoration of bimetallism. Yielding to such pressure Congress in 1878 enacted the Bland-Allison Act, requiring the government to purchase each month not less than \$2,000,000 nor more than \$4,000,000 worth of silver bullion to be coined into silver dollars. In 1890 another law was put on the statute books, and before its repeal in 1893 there was added to the monetary supply of the country \$218,000,000 in silver. The act of 1878 had given the country \$352,000,000 in silver, making a total of \$570,000,000 of overvalued silver which had been added to the money supply.

Agitation for free and unlimited coinage of silver at the ratio of 16 to 1 was taken up by powerful politicians. The double standard was the paramount issue in the presidential campaign of 1896. The agitation finally gave way, and in 1900 the country definitely accepted the single standard.

Those favoring bimetallism made two important arguments: (1) that the double standard tends to maintain a more stable ratio between silver and gold; (2) that it tends to produce a greater stability in prices than is possible under the single standard. They drew upon French experience particularly in support of the first proposition. Perhaps if all nations would adopt bimetallism, and all use the same ratio in coining, then the market value would conform to the mint ratio, but such an arrangement has been impossible. The second proposition assumed a very slow increase in the supply of gold and a fairly small output of silver. The developments of the past quarter-century have been contrary to those assumptions, and most people agree that it is fortunate we did not return to the double standard.

Professor Taylor admirably states the principles that define and determine the standard money:¹

1. The standard money of any system must be a money which is at par and which has its value fixed independently of its relations to other moneys.

The standard money has its value fixed independently of the other moneys; the other moneys depend upon the standard money for their par value. For example, the value of gold is fixed independently of subsidiary coins, yet the subsidiary coins pass at their face value because they may be redeemed in gold; that is, exchanged for gold. A penny is not one hundredth of a dollar because of the base metal it contains. The practically worthless metal in a penny passes as one cent because it is a token of that value in gold.

¹ F. M. Taylor, *Principles of Economics*, p. 394 ff.

2. If, among those moneys in any system which are a valid tender in the payment of debts, differences of exchange value arise, the cheapest of such valid-tender moneys establishes itself as the standard money, and the rest go to a premium; that is to say, the cheapest of the legal tenders establishes itself in competition with the others, the worse money supplants the better. During the Civil War irredeemable paper money came to be the standard for domestic trade. Both gold and silver were at a premium. Prices were much higher in terms of paper money ("greenbacks") than in terms of gold.

From this principle flow certain corollaries:

1. If two metallic moneys are freely coined and are full tender at a coinage ratio different from the market ratio, the money coined from the overrated metal will establish itself as the standard money.

2. If, in the case of a legal-tender circulating note which has hitherto been kept redeemable in what has hitherto been standard money, a suspension of payments of standard money takes place, such legal-tender note will almost certainly establish itself as standard money.

This is abundantly illustrated by the experience of Germany, Austria, France, Poland, Russia, and other European countries during and following the World War. Persons who had gold hoarded it, or paid it to foreigners, and made payments within the country in the paper marks, francs, etc., which depreciated more and more in value as increasing amounts were printed. Gold disappeared from circulation.

3. If any form of credit money or money substitute ceases to be redeemable in standard money or its equivalent and, though not a true legal tender, is, through any set of circumstances, made in effect a valid tender in payment of debts, such money or money substitute will for the time being usurp the place of standard money.

QUESTIONS

1. What is meant by the single standard? the double standard?
2. What is meant by the coinage of silver and gold at the ratio of 16 to 1? If such a ratio had been adopted in 1896, what would have been the results?
3. Define bimetallism.
4. In the colonial days in Massachusetts a colonial tax was paid in cattle. What economic principle is illustrated by the fact that the tax was paid in the poorest cattle? (J.)
5. Under what circumstances could the United States successfully adopt bimetallism?
6. Do the same forces affect the value of gold bullion and the value of the gold dollar?
7. Is a silver dollar worth one hundred cents? Does a half-dollar contain one half as much silver as there is in a silver dollar?
8. Does the government fix the value of the gold dollar? of the nickel?
9. State the principles that define and determine the standard money.

SECTION 5. THE QUANTITY THEORY OF MONEY

What determines the value of money? The answer which most economists make to this question is known as the quantity theory of money.

We may state the theory, "The value of money, under the simplest conditions, is exactly inverse to its quantity";¹ or, again, "The value of money in any country tends to vary inversely as the quantity of money in that country."²

It is argued that at a given time there are just so many goods offered for sale; that increasing the supply of money will not at the time affect the quantity of goods; to increase the supply of money will mean merely that more money will

¹ Taussig, *Principles of Economics*, Vol. I, p. 233.

² Taylor, *Principles of Economics*, p. 428 ff.

be used to do the same work which a less amount would have done. That is, prices will rise and goods will be exchanged at higher prices because the value of money will have fallen. If money be taken out of circulation and the supply be lessened, then a smaller quantity of money will have to serve in exchanges the same purposes as would have been served by a larger supply. Prices will be lower, money having increased in value.

It is pointed out that in a community where gold is discovered, as in California in 1849 or in Alaska a few years ago, prices soar to great heights. It is held by the advocates of the quantity theory that this is due to the great abundance of bullion, used as money, and its consequently low value. The more careful economists who accept the quantity theory are faithful to set forth the limitations. Among such limitations are the following usually mentioned :

1. Where gold is the standard money the amount in existence changes so very slowly that it is not possible to prove the quantity theory. Gold is imperishable. The present stock of gold is the result of the accumulation of centuries. It is like a great reservoir to which relatively small amounts are added from time to time.

2. Purchasing power is not limited to money. Credit in the shape of bank notes and bank deposits is elastic. Countless transactions are settled without the passing of money. Then, too, money may circulate rapidly and do much more work than if it circulated slowly. If the frequency of turnover be increased, the quantity of money does not need to be changed in order to make effective the demand for more goods and hence to influence prices upward.

Some consequences of the quantity theory. If the value of money varies inversely to its quantity, it will vary immensely with the output of the metal : the greater the quantity mined, the less its value. Then, too, the value of gold (or the metal

used as a standard) will vary directly with the cost of producing it: the greater the cost of bringing the gold from the mines, the less of it there will be brought. With improvement in the process of extracting gold from the ore the expenses of working it come down, greater quantities are mined, and the value tends to be lessened as a result. Moreover, the value of gold will vary directly with the amount used in the arts: the more there is used in making jewelry, spectacle frames, and the like, the less will be added to the monetary supply. It is possible to melt down coins for use in the arts and actually to lessen the quantity of money, thereby adding to the value of what is left as money.

Even those who have concluded that in spite of qualifications the quantity theory, as a statement of a general tendency, remains unshakable, point out that under special circumstances other principles have greater influence.¹ They show that the value of whatever is used as money may be determined quite apart from the quantity of money. If the substance used as the standard money changes in value, then the value of all kinds of money dependent upon that standard will also change. For example, during the Civil War gold was the substance used as the standard of value. It was driven from circulation by a flood of paper currency and became a commodity dealt in by speculators, being bought and sold as any other commodity. Those having payments to make abroad would have to buy gold for such a purpose. As gold fluctuated in value, the paper currency depending for its value upon the prospect of redeeming it in gold would also fluctuate. The value of the money in use — that is, the level of prices — was adjusted to the changes in the value of the substance recognized as the ultimate standard.

¹ Taylor, *Principles of Economics*, p. 432.

QUESTIONS

1. State the quantity theory of money. What are its limitations?
2. "If ten times the labor were given to gold-mining which is now given, and ten times the gold were thereby got, the world would not be better off." What is meant? Do you agree?
3. State how the following would be affected if half the world's stock of money were suddenly to disappear: (1) the price level; (2) the value of gold watches; (3) lavish expenditure; (4) general prosperity. How do you measure the quantity of money? the amount of wealth? (D. and D.)
4. What does a general rise in prices indicate as to the value of money?
5. In 1886 Congress provided by law for the issue of silver certificates of \$1, \$2, and \$5 denominations, and in 1900 decreed that 90 per cent of the total amount of such certificates should be in denominations from \$10 down. What did they hope to accomplish by this legislation? (T.)

SECTION 6. PAPER MONEY

While gold and silver have displaced other commodities as money, and gold in recent years has become the standard money for the principal commercial countries, we do not see much silver in circulation except in fractional currency. Gold is rarely seen in circulation; it remains in the vaults of banks. And paper, a commodity of little value, is used as a substitute for gold and silver. Why should people be willing to accept bits of paper in exchange for their goods or services? This will be better understood after we consider the different types of paper currency.

The bullion certificate. This is a written statement signed by the proper authorities showing that the amount of gold or silver described therein is in existence and is held awaiting the pleasure of the owner of the certificate. An example of the bullion certificate is the gold or silver certificate in the

United States. If you will notice a dollar bill, you may see that it describes itself as a silver certificate, and it gives the owner of the bill the right to demand a silver dollar, which is in existence and is being kept for the specific purpose of redeeming that bill. If you get a gold certificate, the gold dollars it calls for are actually in existence on deposit in the Treasury of the United States to redeem that bill, if presented. The holder of a bullion certificate holds the evidence of his title to the metallic money which is described in the certificate. Because this gold or silver is safely held for whoever may own the certificate, the certificate circulates freely and is accepted as would be the gold or silver.

The credit note. A second type of paper money which circulates freely and serves the convenience of the public is the credit note. This may be issued by a government or by a bank. Like the bullion certificate it is convertible upon demand into specie; but, unlike the bullion certificate, it is not supported by a deposit of specie equal to 100 per cent of the denomination of the note. However, it is supported by some quantity of specie. Experience has shown that not all the notes issued by a bank or by a government will be presented for collection at the same time. If a reserve of specie be kept on hand sufficient to pay off the notes as they come in, they will circulate just as readily as the specie. The United States has \$346,000,000 of these credit notes, popularly known as "greenbacks," and issued during the Civil War. Banks issue notes from time to time which are protected by the assets of the bank, and the convertibility of the notes is assured by requiring a cash reserve to support the note issue. The bank notes will be more fully described in the chapter on banking.

Fiat money. This is inconvertible paper money. It is called fiat money because it is supported only by the fiat of the government; that is, the mere command of political authority.

It is impossible to exchange it at any bank or government depository for specie. It often has the form of a government note, giving the holder the right to demand payment in specie, but the issuing government has not the specie to redeem the paper nor the credit which would enable it to get the specie for such a purpose. It is put into circulation by the government's using it to pay its obligations, such as interest on its bonds, the salaries of officials, the wages of soldiers and sailors, and for supplies purchased. It circulates because the government makes it legal tender, compels debtors to accept it, and takes it in payment of taxes. Such money is usually overissued. A good example of fiat money is the paper currency of the Confederacy. The Confederate government had no specie to meet its obligations. It printed its promise to pay specie on demand on paper, and gave out this paper to merchants, manufacturers, and farmers for supplies, to soldiers for wages, and to officials for salaries. As the prospects of the success of the government decreased, so the value of the paper money fell. The paper was no better than the credit of the government issuing it. A government by its mere fiat cannot create value. It can no more stamp a piece of paper with the denomination of a dollar and make it by that mere act worth as much as 23.22 grains of gold than it can turn paper into gold.

Someone asks why does fiat money circulate at all? Why do people accept it in payment? Where fiat money is in use we find that the people have been accustomed to the use of bullion certificates and of credit notes; that is, they have formed the habit of using paper currency. Again, we find that the government is strong enough to enforce its authority and that it exerts its strength to support the paper it puts into circulation. This it does by making it legal tender for all debts not calling for payment in specie and by receiving it in payment of taxes and other dues to the government.

To the extent that fiat money will command goods in exchange for itself it has value. This value is traceable not to the substance of which the money is made, for that is paper practically worthless; it is traceable to the confidence that the paper will finally be redeemed in goods of value, that it will some day exchange at par for gold or for whatever commodity is used as a standard of value.

We may lay down the following principle as controlling the value of irredeemable paper: when there is much uncertainty, either commercial or political, the value of fiat money is largely determined by public confidence in its ultimate redemption. The value of fiat money varies directly as such public confidence.

This being true, it is correct to say that the value of fiat money depends upon its quantity: the greater the amount of such irredeemable paper issued, the less probable that it will ultimately be redeemed at par. And it so happens that as commercial or political uncertainty increases, the quantity of irredeemable paper is likely to be augmented.

This is best illustrated by historical instances of the issue of fiat money. Such money is usually issued either as the obligations of the government itself or of great central banks, which are relieved by legislative action of the responsibility of redeeming their notes in specie. An example of the former was the action of the Federal government during the Civil War; of the latter, the issue of notes by the Bank of France during the World War. Usually the occasion for the uncertainty giving rise to irredeemable paper is war. Specie payments may at first be suspended as a matter of precaution and to make the supply of specie more serviceable during crises. The government as the bank issuing the irredeemable paper may have high hopes that its value will not depreciate. They may try to maintain the paper as credit notes. In

the case of France during the Franco-Prussian War, the notes of the Bank of France were so cautiously issued that they retained their character as high-class credit notes practically throughout the period of trial and stress. But ordinarily a war does not go as was expected: the credit of the government becomes strained, and it finds great difficulty in financing military and naval campaigns, the pressure to resort to forced loans becomes stronger, and citizens are called upon to exchange their goods for paper money. Successful campaigns cause such paper money to approach the character of credit notes, while defeats and disasters cause it to depreciate in value. A good illustration is the case of the Confederacy during the Civil War. The South had but little specie with which to begin. The Confederate government from the outset issued its notes, which circulated as money. It was hoped by those in authority that the South would soon be victorious and that it could raise through taxation enough to redeem all these notes at face value. With a success of Lee's armies the credit of the Confederacy would stiffen; with the prospect of ultimate redemption the notes would increase in value. But as the Northern armies increased in number, and the Confederates fell back before the greater resources of the North, the Confederate currency decreased in value. Finally, with the surrender of General Lee and the complete collapse of the Confederate government, the notes of the Confederacy became absolutely without value.

Upon the declaration of war in 1914, crowds in Germany besieged the Reichsbank to get notes converted into gold. On August 1 the Reichsbank posted a notice that since its notes had been made full legal tender in 1909 there was no need to present them for redemption. On the afternoon of that day the Reichsbank ceased to redeem its notes in gold.¹ Prices at once began to advance. Government was invoked

¹ J. L. Laughlin, *The Credit of the Nations* (1918), p. 22.

to fix prices; but as time passed prices rose in recognition of the depreciation of the paper money.

Germany expected a short and victorious war. The German government expected to pay the expenses of the war with the proceeds of indemnities levied upon the conquered nations. As the years dragged by without bringing success, the war expenses mounted to unforeseen sums. The government borrowed heavily from its citizens. These war loans were in large measure financed through the issue of notes by the Reichsbank. Reichsbank notes increased in quantity from the equivalent of about \$450,000,000 on July 31, 1914, to \$2,250,000,000 on July 31, 1917. With defeat in 1918, and the realization that war debts, if ever paid, would have to be paid out of the contribution to the government by German citizens, and with the provisions under the treaty of Versailles by which Germany would be called upon to make burdensome payments toward repairing some of the damages of the war she had waged, the paper marks began to decline still further in value than they had already fallen. By June, 1920, there were 40,000,000,000 German marks that had been issued as paper money; on December 15, 1921, there were 104,387,276,000 marks in circulation, and a paper mark calling for 23.8 cents in gold was selling for half a cent.¹ This shows how the German mark has fallen in value as the prospects of its redemption in specie have been lessened.

Germany is not alone among the European countries that have experienced revolutionary changes in currency systems. One country after another has seen its paper money, issued at first as credit notes, degenerate into fiat money. On December 9, 1921, the Russian ruble, nominally worth 51½ cents in gold, sold for only one fifth of a cent, being at a discount of 99.6 per cent. The quotations of foreign exchange on p. 138 show how complete has been the substitution of fiat

¹ Commerce and Finance, Vol. X, No. 50 (December 14, 1921), p. 1838.

money for credit notes in such countries as Germany, Poland, Finland, Rumania, Austria, Hungary, and Russia. Portugal, too, has become so involved that her currency fell to a discount of 92.4 per cent.

QUESTIONS

1. Why is paper money acceptable?
2. What is a bullion certificate? Illustrate from our currency.
3. Explain the credit note. What credit notes do we have in our currency?
4. To what extent are checks used as a means of payment in your community?
5. What is fiat money? Give examples.
6. Why does fiat money circulate?
7. November 1, 1921, there were \$346,681,016 of United States notes (greenbacks). Are these a part of the national debt? Are they credit notes or fiat money?
8. In 1862, when gold payment on Treasury notes had already been suspended, the United States began the issue of legal-tender notes. In consequence gold went to a premium, soon being worth \$1.15 per dollar. What actually happened to it? (T.)

SECTION 7. SOME SUGGESTED REFORMS

It has no doubt occurred to the reader that while money serves as a standard for deferred payments, it is possible that the amount paid may turn out to be of greater or of less value than the amount promised. For we have seen that money, the standard of value, itself changes in value. This is true of gold or of any commodity which may be used as money. If between the time a debt is incurred and the date it is paid, the value of money increases (and prices fall) the debtor will actually have to pay a greater value than he contracted to pay; on the other hand, if between the making of a debt and its payment, money decreases in value (and prices rise) the debtor will discharge his obligation by paying less value than

FOREIGN EXCHANGE QUOTATIONS¹

NOMINAL GOLD VALUE	COUNTRY	DEMAND OR CHECK CLOSING DECEMBER 9, 1921	PER CENT OF DISCOUNT
<i>Europe</i>			
4.8665 dollars to £1	England	4.10 $\frac{3}{8}$ dollars for £1	15.6
19.3 cents to 1 franc	France	7.69 $\frac{1}{2}$ cents for 1 franc	60.1
23.8 cents to 1 mark	Germany	0.52 $\frac{1}{4}$ cent for 1 mark	97.8
23.8 cents to 1 mark	Poland	0.03 $\frac{1}{4}$ cent for 1 mark	99.8
19.3 cents to 1 franc	Belgium	7.41 $\frac{1}{2}$ cents for 1 franc	61.5
19.3 cents to 1 finmark	Finland	1.90 cents for 1 finmark	90.0
19.3 cents to 1 drachma	Greece	4.15 cents for 1 drachma	78.4
19.3 cents to 1 lira	Italy	4.37 $\frac{1}{2}$ cents for 1 lira	77.3
19.3 cents to 1 leu	Rumania	0.84 cent for 1 leu	95.6
19.3 cents to 1 peseta	Spain	14.31 cents for 1 peseta	25.8
19.3 cents to 1 franc	Switzerland	19.29 cents for 1 franc	
20.26 cents to 1 crown	Austria	0.03 $\frac{1}{2}$ cent for 1 crown	99.8
20.26 cents to 1 crown	Czechoslovakia	1.14 cents for 1 crown	94.3
20.26 cents to 1 crown	Hungary	0.13 cent for 1 crown	99.3
20.26 cents to 1 crown	Jugoslavia	0.37 $\frac{1}{2}$ cent for 1 crown	98.1
26.8 cents to 1 crown	Denmark	18.87 cents for 1 crown	29.5
26.8 cents to 1 crown	Norway	14.55 cents for 1 crown	45.7
26.8 cents to 1 crown	Sweden	24.15 cents for 1 crown	9.8
40.2 cents to 1 florin	Holland	35.80 cents for 1 florin	10.9
1.08 dollars to 1 escudo	Portugal	8.20 cents for 1 escudo	92.4
51.45 cents to 1 ruble	Russia	0.20 cent for 1 ruble	99.6
<i>South America</i>			
42.45 cents to 1 peso	Argentina	32.875 cents for 1 peso	22.5
32.44 cents to 1 milreis	Brazil	13.00 cents for 1 milreis	59.9
36.50 cents to 1 peso	Chile	10.47 cents for 1 peso	71.3
<i>Canada</i>			
100 cents to \$1	Canada	91.8 cents for \$1	8.2
<i>Far East</i>			
48.66 cents to 1 rupee	India	27.125 cents for 1 rupee	44.2
49.85 cents to 1 yen	Japan	47.875 cents for 1 yen	3.9
50 cents to 1 silver peso	Philippine Islands	48.75 cents for 1 peso	2.5
40.2 cents to 1 florin	Java	36.50 cents for 1 florin	9.2
	Hongkong	54.25 cents for Mexican \$1	
	Shanghai	75.75 cents for 1 tael	

¹ Commerce and Finance, Vol. X, No. 50, p. 1838.

he promised, and his creditor will have to take less value than he expected to receive when the debt arose. To illustrate: A may buy a twenty-year bond with a par value of \$1000 and give therefor \$1000. What A did was to lend \$1000 to the issuer of the bond. Under the agreement A is to receive, in addition to interest, the same amount of money as he paid for the bond. During the twenty-year period it is possible that the value of money will not fluctuate. In that case A would get back money with the same purchasing power as that he gave for the bond twenty years earlier. If during the twenty-year period prices should fall, it would require more goods to get \$1000, and A would find that he received more power over goods in exchange than he parted with for the bond. If prices should rise, it would take less goods to command \$1000 in exchange than when the bond was purchased, and A would find that he really received less in payment of the bond than he originally gave for it.

Prices have tended to fluctuate, and at times to fluctuate rather violently. A sudden fall in prices increases the hardships of debtors; a sudden rise in prices brings loss to creditors. In so far as fluctuations in prices are due to the change in the value of money, they could be eliminated by stabilizing the value of money. Some interesting proposals have been urged to accomplish this purpose. The remainder of this section will be given to a consideration of two such proposals: the tabular standard and the compensated dollar.

The tabular standard. Those proposing the tabular standard, also called the multiple standard, assume that the same quantity and quality of goods should be returned at the end as were received at the beginning of a contract. The tabular, or the multiple, unit is the same quantity of the same goods at any time. Under such an arrangement the government would have a commission collect and average the quotations of prices, daily, weekly, monthly, and yearly, of a long list

of staple articles. Such prices when added up would give a sum of money which would buy the same quantity of the same goods at different periods of time. For example, let us suppose \$100 bought the articles of the list in 1900, and in 1920, because of a decrease in the value of money or other reasons, the same list cost \$180. Under this statement of facts a contract drawn in terms of the tabular standard would require \$180 to discharge it in 1920 because it would take that sum to buy the same list of goods which in 1900 had cost only \$100. If because of improvements in production or increase in the value of money, goods which cost \$100 in 1920 could be had for \$80 in 1930, then a contract drawn in terms of the tabular standard could be settled with \$80 because it would buy in 1930 what had cost \$100 in 1920.

The tabular standard does not involve the abolition of the money standard, and it does not in any way introduce a new medium of exchange. It assumes that the government will enforce contracts drawn in terms of the tabular standard. Any government could authorize such contracts and could arrange to collect the data necessary for the operation of such a standard. The government adopting the tabular standard would average from time to time the prices of a long list of articles. The list might include such commodities as the following: wheat, corn, oats, Irish potatoes, rice, beef, pork, milk, butter, eggs, sugar, coffee, tea, tobacco, cotton, wool, silk, leather, hides, steel, coal, copper, gasoline, lumber, house rent, car fare, and other goods.

General Walker illustrates the working of the tabular standard as follows:¹

Suppose I sell a house today the value of which, as agreed upon between myself and the purchaser, is \$20,000, one half to be paid down at the time, two tenths to be paid in two years, three tenths in five years. One half of the purchase money, being payable at

¹ Walker, *Political Economy (Advanced Course)*, p. 371.

once, is paid in money, \$10,000 in gold or bank notes. For the rest the purchaser and I look to the last-published statement of the government commissioner and find the value of a unit of the tabular standard to be \$12.50; that is, \$12.50 will now purchase the bill of goods which form the standard. The purchaser then gives me two notes, one for 320 units of the tabular standard, payable in two years, and one for 480 units, payable in five years, with interest at 6 per cent, per annum, meanwhile. (\$20,000 would equal 1600 tabular units of the value \$12.50 each. Two tenths of 1600 = 320; $\frac{3}{10}$ of 1600 = 480.) At the end of the first year the two parties interested look in the official gazette and find the value of the unit at the time to be \$12.75. There is then to be paid one year's interest on each note, amounting, in case of the first note, to 19.2 units, which obligation is discharged by the payment of \$244.80 in current money; and, in the case of the second note, to 28.8 units, which obligation is discharged by the payment of \$367.20.¹

At the end of the second year the value of a unit of the tabular standard might be ascertained to be \$13 or \$12.25; in the latter case the interest on the first note is discharged by the payment of \$235.20 and that on the second note by the payment of \$352.80. If, however, the value of a unit has been ascertained to be \$13, the interest on the first note will be \$249.60, and that on the second note \$374.40.

But the principal of the first note, 320 units, is now to be paid. A similar computation shows that if the value of the tabular standard is \$12.25, the maker of the note must pay \$3920 to discharge his obligation; if the value of the unit be \$13, he must pay \$4160.²

The tabular standard is criticized on the ground that it would not be used in the great number of transactions running for three or four months because there would be so little risk involved from fluctuations in the value of money over so short a period. Then, too, it is pointed out that the tabular

¹ Six per cent of 320 units = 19.2; 6 per cent of 480 units = 28.8. When the interest is due the tabular unit is worth \$12.75. $\$12.75 \times 19.2 = \$244.80$; $28.8 \times \$12.75 = \$367.20$.

² The note calls for 320 units. If each unit be \$12.25, then $320 \times \$12.25 = \$3920$; if each unit be worth \$13, then $320 \times \$13 = \$4160$.

standard will neither prevent nor mitigate financial crises, for crises arise ordinarily from maladjustments (such as overproduction in some lines) independent of fluctuations in the value of money. Then some object that the tabular standard is unjust to creditors in a time of falling prices in that they are deprived of their share of the benefits coming from such improvements in the arts as may have contributed to the falling of prices. Such benefits are transferred through the working of the tabular standard from the creditor to the debtor. On the other hand, the tabular standard protects the creditor in a time of rising prices.¹

The compensated dollar. While the dollar is defined by Congress as 23.22 grains of pure gold or 25.8 grains .900 fine, a dollar is not coined. Silver dollars and paper dollars circulate at par because they are redeemable in gold. But the *real* dollar, 25.8 grains of gold .9 fine, is never coined. It is mere definition, an abstraction. It is proposed to modify this definition in the interest of stabilizing the value of money.

A variation of the tabular standard is the "compensated dollar" proposed by Professor Irving Fisher of Yale University. He would regulate the level of prices by controlling the money supply through seigniorage charge determined by the tabular standard. Our present gold dollar is of constant weight but of varying purchasing power. What Professor Fisher wants is a dollar of constant purchasing power and of varying weight. The coined dollars would merely be tokens like brass checks calling for a "bullion dollar." A bullion dollar is the weight of bullion which the owner of a coined dollar can get for it by redemption.

Under the tabular standard we should have dollars of fixed weight and should keep debtors and creditors from losing or

¹ For a good discussion of the tabular standard and a statement of the criticism, see J. L. Laughlin, *The Principles of Money* (1919), pp. 47-58.

gaining because of price fluctuations by paying them more or less dollars as determined by the value of the tabular unit; under the compensated dollar contracts would be made in terms of dollars instead of in terms of tabular units, but the dollars would vary in size according to the weight of gold required to purchase a tabular unit. For example, if in 1900 a contract were made to pay \$100 in 1920, and in the meantime prices rose 80 per cent, instead of paying \$180 as under the tabular standard, the obligation would be discharged by paying \$100. But each dollar would be a claim check redeemable in gold 80 per cent greater in weight than when the contract was made. The government would keep gold bullion in the Treasury, and the amount it would exchange for a coined dollar would depend upon such calculation as would be made to find the value of a tabular unit.

Index numbers of prices would be used to show what the weight of the bullion dollar should be from time to time. We now have several good index numbers. In setting up an official index number of prices, some one year would be taken as the base of reference if the price level for that year would be called 100 per cent.

The plan for the compensated dollar calls (1) for an official index number of prices; (2) the readjustment by the government at regular intervals, as once a month, of the official weight of the bullion dollar according to the findings of the index number; (3) the government to be always ready to redeem the coined dollars or certificates in bullion dollars.

The purpose of the compensated dollar is to make a stable dollar, to standardize the dollar as a unit of purchasing power, to change from a gold dollar of constant weight and varying purchasing power to a gold dollar of constant purchasing power and varying weight.¹

¹ For further discussion of the compensated dollar see Professor Fisher's writings.

The plan of the compensated dollar has been criticized¹ on the grounds that it assumes that prices are largely dependent upon the quantity of gold; that it takes for granted a closer connection between the quantity of coined money and general prices than can be demonstrated; again, that such a plan to be successful would require the assumption of international obligation, which is unlikely; moreover, that the emergency is not so serious, the evils of the present system are not so great, and the gains to be secured under the plan so unmistakable as to justify the experiment; especially in view of the fact that it would no doubt lead to complications of its own, and would likely be abandoned on its first failure to cure the ills suggesting its adoption.

QUESTIONS

1. Explain what is meant by the tabular standard. How does it differ from the compensated dollar?

2. A agreed to pay B \$1000 five years from date. When the obligation matured prices had increased 50 per cent. Under the tabular standard how much would A have paid to B in discharging the obligation? With the compensated dollar as the standard how many dollars would A have paid? how much bullion? What would have been the effect of a fall in prices of 40 per cent instead of the increase mentioned?

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¹See F. W. Taussig, "The Plan for a Compensated Dollar" in the *Quarterly Journal of Economics*, May, 1913, Vol. XXVII, pp. 402-416.

CHAPTER IX

BANKING

SECTION I. SOME OBSERVATIONS ABOUT BANKING

Everyone knows that the bank building is one of the best and most modern buildings in the community. Its marble and mahogany fixtures suggest prosperity; its steel cages for employees and its vaults and safes are visible evidences of safety. The tables furnished with bank deposit slips, blank checks, blotters, pens, and ink, the courtesy of the employees, the stacks of money arranged within easy reach of the paying-teller, all tell us that the bank is an obliging institution catering to its customers and seeking to please as truly as the other merchants and tradesmen of the town. For the bank is a merchant selling credit, the product of its own organization. The banker is one of the most useful specialists of our time; his services are indispensable in making possible and convenient the exchange of goods.

The use of money. We have seen that money is a device designed to overcome the difficulties of barter. People exchange the goods they have to sell for money and then turn around and exchange the money for the goods they wish to buy. The money is a mere counter. It is not used up in one transaction, but may be used again and again. It has been found, however, that there are certain limitations and inconveniences in the use of money. In the first place, there is the matter of keeping it safely. If one needs a rather expensive article, it may be necessary to accumulate a fund of money by saving through considerable time. There is danger of its being lost or stolen in the meanwhile. Merchants at times are required to

make large payments for their stock. There is always danger from thieves and burglars if this money is kept in a strong box in the store. A cattle-buyer does not like to carry ten or twenty thousand dollars to a distant ranch to pay for a herd; nor does the stock-raiser want to receive so much cash in hand and assume the risk of losing it or having it taken from him.

The inadequacy of money. In the second place, there is not enough specie in existence to serve all the requirements of exchange if nothing but money be used in making payments. To make possible all the exchanges taking place in our prosperous and expanding society other means of payment than gold and silver, the standard moneys, have had to be devised.

Early banks. The early banks seem at first to have afforded a safe place for keeping money and valuables. The bank had a strong box which it guarded with great precaution. It was able to collect a fee from those who had money to be kept and wished to purchase the security it offered. Many persons now think of the bank as offering to the public unusual facilities for keeping the treasure committed to it. Yet furnishing a safety-deposit vault is only incidental to the business of banking as we know it. It is not the most important function of modern banking; the bank of today exists primarily to supply credit.

QUESTIONS

1. In what does a banker specialize?
2. State some inconveniences incurred in using money.
3. Is gold used in retail transactions? Why?
4. What function was performed by early banks?

SECTION 2. FUNCTIONS OF A BANK

How does the bank supplement the supply of money by creating and selling credit? It does this by performing three



INTERIOR OF A BANK

The appointments of a bank are designed to give its customers the best possible service and satisfaction.

functions: (1) discount, (2) deposit, and (3) issue of its own notes. What is meant by these functions must now be explained. We say that through the functions of discount, deposit, and issue credit is supplied. What is credit? If you buy a book at the store and have it "charged" to the account of yourself or of your guardian, it is said that you bought the book on credit. A credit transaction is one which has not been closed, since a future payment is to be made by one side or the other. In order better to understand how the bank performs these functions of discount, deposit, and issue, we will take an imaginary bank and observe its operations from its organization until it is well under way as a modern bank.¹

Organizing a bank. Suppose that citizens of your own town decide to organize a new bank. We will say that they contribute \$100,000 of capital stock. They apply to the Comptroller of Currency at Washington or to the Commissioner of Banking at the state capital for a charter. The board of directors appoints the necessary officers. At this stage the balance sheet would show the following:

<i>Liabilities</i>		<i>Resources</i>	
Capital stock	\$100,000	Cash	\$100,000

The officers next buy a lot in the business district, erect a building, if one suitable is not already on the lot, and install suitable fixtures, including desks, tables, ledgers, cages, and safes. We will say that these items cost \$10,000. The statement of liabilities and resources would then show the following:

<i>Liabilities</i>		<i>Resources</i>	
Capital stock	\$100,000	Cash	\$90,000
		Banking establishment .	10,000
			<u>\$100,000</u>

¹ The method here used is that of presentation by statement employed by Professor Dunbar in chap. iii of his *Theory and History of Banking*.

Capital stock a liability. But why, you may ask, should capital stock appear in the bank statement as a liability? Because the banks owe the capital stock to the stockholders. The bank is regarded in law as a person. It owns the amounts of cash contributed to the capital fund by the stockholders. In this case the bank owns the cash and the banking establishment. But it got these assets as a result of contributions to a capital fund by stockholders. The bank owes to these stockholders the amount of the capital stock. To pay this liability to the stockholders, the bank would be able to look to the cash and the establishment it owns as resources. Bear in mind that the bank owes the amount of the capital stock to the stockholders. Also remember that if the bank earns any profits they, too, will belong to the stockholders and must appear in the statement as a liability; that is, something due to another.

Discount. Our bank is organized; it has a building and the necessary equipment for doing business; the officers and employees are at their respective places. We will say that the first customer is Mr. A, who applies for a loan. The cashier knows Mr. A, believes what he says about his business and its requirements, and has all confidence that he will repay the loan when due. He agrees to make the loan as requested for three months at 6 per cent interest, whereupon Mr. A signs a note which contains the following language:

\$10,000

(Town)

(State)

October , 1922.

Three months after date I promise to pay to the order of X bank Ten Thousand Dollars, for value received, with interest at the rate of six per centum from the date of maturity.

(Signed) A.

Any promissory note which a bank would accept would have to contain all that is included in the one above. Usually they include much more: provisions as to place of payment,

for attorney's fees in case legal action is necessary to collect the note, etc.

After this transaction the statement of our bank would be :

<i>Liabilities</i>		<i>Resources</i>	
Capital stock	\$100,000	Cash	\$80,150
Undivided profits . .	150	Banking establishment .	10,000
		Loans and discounts .	10,000
	<u>\$100,150</u>		<u>\$100,150</u>

A came to the bank and gave his note for \$10,000 and took away \$9850; that is, the bank took out the interest in advance. The customer got \$10,000, less interest thereon at the rate of 6 per cent for three months.

This interest is a profit, and belongs to the stockholders; it is therefore put down in the statement as a liability, something due by the bank. It is called in the statement undivided profits.¹ The customer has taken away \$9850 in cash. He reduced the cash resources of the bank by that amount. But the bank still owes the stockholders \$100,000, and, in addition to this permanent liability, \$150. That is, the bank owes \$150 more than it did before the transaction, and it has \$9850 less of cash with which to pay. But it has acquired a new asset. You notice under Resources a new item, "Loans and discounts \$10,000." The bank has acquired the right to demand on a certain date \$10,000 from A. The bank has bought the right to demand of A \$10,000 and has given him \$9850 for this claim against him. We say the bank discounted A's paper. That is, A signed a note; the bank took that note as evidence of the claim it had acquired against A; because A needed money in the present, he sold to the bank for \$9850 cash the right to require him to pay \$10,000 three months in the future. The bank made \$150 on this transaction, for when the three months have passed A will bring to the bank \$10,000 in

cash, and the bank will take the cash and mark his note "paid"; that is, cancel its right to demand payment of him. Then, if no other transaction had occurred, the bank statement would be:

<i>Liabilities</i>		<i>Resources</i>	
Capital stock	\$100,000	Cash	\$90,150
Undivided profits . .	150	Banking establishment	10,000
	<u>\$100,150</u>		<u>\$100,150</u>

The bank, through the process of discounting one note and collecting it, made for its stockholders \$150.

Deposit. In our illustration, in which the bank discounted A's paper, or bought from A the right to demand payment of him three months in the future, we assumed that A received cash in exchange for this right. In this country and in England he would not as a rule want to take cash, but would prefer a deposit account with the bank. The bank would take A's note for \$10,000 and would give him a checking account, evidenced by a pass book, for \$9850; that is, the bank buys the right to demand payment of A three months in the future by giving to A in return a right to demand payment of the bank immediately or as will suit his convenience. The bank exchanges a claim against itself for a claim against A. The bank says to A, "If you will give me the right to demand \$10,000 of you three months from date, you may have the right to demand any amount of me up to \$9850 and whenever you please, and I will pay to whatever person or persons you direct me to pay." If A takes in return for his note a pass book, and if this be the first transaction of the bank, its statement would show:

<i>Liabilities</i>		<i>Resources</i>	
Capital stock	\$100,000	Cash	\$90,000
Undivided profits . .	150	Banking establishment.	10,000
Deposits	9,850	Loans and discounts .	10,000
	<u>\$110,000</u>		<u>\$110,000</u>

You will notice that the deposits appear in the bank statement as a liability, something the bank owes. In this case the bank owes A \$9850. It owes A this sum because A has agreed to owe the bank a somewhat larger amount due in the future. The deposit is not only a liability of the bank but a demand liability; that is, the bank is liable to pay the depositors upon demand. Whenever a depositor wants his money he has the right to call for it, and the bank is bound to hand it over to him. If A be a merchant, he may draw several checks against this account in payment of his bills with the jobbers and to his employees for wages. These checks may be presented to the bank for collection in cash. In that event the item deposits would be lessened by the amount called for in A's checks. Suppose that A checks out the full amount and that the holders of the checks collect them in cash, then the statement would be the same as if A had taken cash in the first place.

<i>Liabilities</i>		<i>Resources</i>	
Capital stock	\$100,000	Cash	\$80,150
Undivided profits . .	150	Banking establishment	10,000
		Loans and discounts .	10,000
	<u>\$100,150</u>		<u>\$100,150</u>

Even though A calls on the bank to pay out the full \$9850 which he received as a deposit for his note, during the three months he will be selling goods over the counter for cash, and from day to day he will bring his cash to the bank and deposit it, so that by the end of three months, we will say, he has sold goods for \$12,850 cash and has deposited all the money in the bank after having checked out the amount he borrowed. Then the statement would be:

<i>Liabilities</i>		<i>Resources</i>	
Capital stock	\$100,000	Cash	\$93,000
Undivided profits . .	150	Banking establishment .	10,000
Deposits	12,850	Loans and discounts .	10,000
	<u>\$113,000</u>		<u>\$113,000</u>

The day has come when the bank calls upon A for \$10,000, as he agreed it should do. He merely draws a check ordering the bank to pay itself \$10,000 and charge the same to his account; that is, he surrenders \$10,000 of his deposit account or of his claim against the bank, and the bank surrenders therefor its claim against him for a like amount. Then the statement becomes:

<i>Liabilities</i>		<i>Resources</i>	
Capital stock	\$100,000	Cash	\$93,000
Undivided profits . . .	150	Banking establishment .	10,000
Deposits	2,850		
	<u>\$103,000</u>		<u>\$103,000</u>

A check. A check is an order to a bank to pay the amount specified to the person named and charge the same to the account of the maker of the check; that is, the one who signed it. The following is a common form:

X BANK

Austin, Texas, 3-28-22

Pay to the order of _____ *John Smith* _____ \$10,000.00
 the amount of Ten thousand $\frac{0}{100}$ _____ Dollars.
(Signed) A.

The check may be made to "bearer," then anyone in possession of it may collect it from the bank. If made to "order," then the person in whose favor it is drawn must indorse it; that is, sign his name on the back of the check. This serves as a receipt for the payment of the amount of the check.

Issue. We noticed above that a bank has three functions. We have discussed the two which are fundamental. Without the discharge of the functions discount and deposit we have no bank. A third function, though not an indispensable one, is that of issue. A bank may give in exchange for cash or for the right to demand payment of a customer, its own notes or promises to pay. These notes would be made in convenient denomination; that is, \$5, \$10, \$20, and the like.

They would be printed in the form of money, but would be merely the promissory note of the bank, duly signed by the proper officer of the bank, and giving the holder the right to demand cash in payment. If A had approached an American bank before the Civil War, or if he were to approach a bank of the continent of Europe now, he would probably get in return for giving the bank a claim against himself not cash, not a deposit account, but the notes of the bank itself. The bank statement would show :

<i>Liabilities</i>		<i>Resources</i>	
Capital stock	\$100,000	Cash	\$90,000
Undivided profits . .	150	Banking establishment .	10,000
Notes	9,850	Loans and discounts .	10,000
	<u>\$110,000</u>		<u>\$110,000</u>

Our merchant gave the bank his note for \$10,000 due in three months. He received the notes of the bank promising to pay on demand \$9850. But these bank notes look like money; they are in convenient denomination; moreover, the bank is well known in the community. Therefore these bank notes will pass from hand to hand, being accepted as money, and not being presented to the bank for collection, because everyone believes they will be paid any time they are presented. The merchant will pay his obligations with these bank notes. Some of them will come back to him and be paid to him in return for his goods, and he in turn will take them to the bank and pay them in as part of the \$10,000 he agreed to pay the bank. Or he may turn them over to the bank in exchange for its liability to pay in the form of a deposit account.

QUESTIONS

1. State and define each of the functions of a bank.
2. What is a credit transaction?
3. What is the capital stock of your local bank? Who are the directors? Do you know their duties? How many officers

and employees in your bank? What are their titles? Do you know their duties?

4. Explain why capital stock is a liability of a bank.
5. Explain and discuss the function of discount.
6. Draw up a promissory note for \$1000 bearing 6 per cent interest and payable to X Bank.
7. Show how a bank makes its profits.
8. Explain and discuss the function of deposit.
9. Write out a form for a check.

SECTION 3. BANKING OPERATIONS

We have discussed the three functions of the bank. Now suppose that our bank has just been organized, and A, the first customer, appears. The bank discounts \$10,000 of his paper, and he takes a deposit account of \$9850. We have the statement as given above:

<i>Liabilities</i>		<i>Resources</i>	
Capital stock	\$100,000	Cash	\$90,000
Undivided profits . .	150	Banking establishment .	10,000
Deposits	9,850	Loans and discounts .	10,000
	<u>\$110,000</u>		<u>\$110,000</u>

We will suppose that ten people borrow various sums which amount to \$20,000. We will assume that the paper of these clients was discounted at 6 per cent and that it averaged three months as the time it should run. We will suppose that half of them wanted their loans in the form of deposit accounts, one fourth in cash, and one fourth in bank notes. Then our statement would be as follows:

<i>Liabilities</i>		<i>Resources</i>	
Capital stock	\$100,000	Cash	\$85,075
Undivided profits . .	450	Banking establishment .	10,000
Deposits	19,700	Loans and discounts .	30,000
Notes	4,925		<u>\$125,075</u>
	<u>\$125,075</u>		

Some of those holding notes would present them for collection. If individuals did not, other banks receiving them from

their customers might send them in for collection. We will say that \$925 of the bank's notes are presented for collection and are paid for in cash by the bank. Then suppose that customers draw out cash in their deposits, and give checks which go to other banks and are presented for collection. We will say that \$4150 is paid out in cash for such checks. Our statement would then read:

<i>Liabilities</i>		<i>Resources</i>	
Capital stock	\$100,000	Cash	\$80,000
Undivided profits . .	450	Banking establishment .	10,000
Deposits	15,550	Loans and discounts .	30,000
Notes	4,000		
	<u>\$120,000</u>		<u>\$120,000</u>

Now we will suppose that in the course of the year the bank earns, in interest on its loans and from other sources, \$12,000, and that its business is such that a balance sheet would show:

<i>Liabilities</i>		<i>Resources</i>	
Capital stock	\$100,000	Cash	\$72,000
Undivided profits . .	12,000	Loans and discounts .	295,000
Notes	20,000	Banking establishment .	10,000
Deposits	290,000	Bonds and stocks . .	25,000
		Expenses	6,000
		Claims against other	
		banks	14,000
	<u>\$422,000</u>		<u>\$422,000</u>

The board of directors looking at this statement would see under "Liabilities" \$12,000 undivided profits; they would see under "Resources" \$6000 which had been paid out in salaries and other expenses. They would write off the expenses by subtracting them from undivided profits, leaving \$6000 for undivided profits. They could then decide to declare a dividend of 4 per cent, which would mean an amount equal to 4 per cent of the capital stock, or \$4000. This would be paid to stockholders, who might keep it in the bank as

deposits. The remaining \$2000 would be set aside as surplus and kept in the business. The surplus would be put under liabilities, because the bank would really owe the surplus to the stockholders. The statement would then be:

<i>Liabilities</i>		<i>* Resources</i>	
Capital stock	\$100,000	Cash	\$72,000
Surplus	2,000	Banking establishment .	10,000
Notes	20,000	Bonds and stocks . .	25,000
Deposits	294,000	Claims on other banks .	14,000
		Loans and discounts .	295,000
	<u>\$416,000</u>		<u>\$416,000</u>

QUESTIONS

1. Bank X has the following items in its account:

Loans and discounts . .	\$380,000	Specie and legal tender.	\$50,000
Bonds and stocks . .	21,000	Capital	100,000
Real estate	12,000	Surplus	20,000
Notes	50,000	Undivided profits . .	8,000
Deposits	350,000	Deposits in other banks	40,000
Other assets	15,000	Cash items	10,000

Arrange these items as they should stand in a regular statement.

2. Taking this statement as a basis, account for the following:

a. The bank discounts \$50,000 of commercial paper for three months at 4 per cent per annum, making half the advance in cash and half in deposits.

b. \$70,000 of loans are paid up at maturity in checks drawn upon the bank.

c. A dividend of 2 per cent is declared, being credited to the stockholders as depositors.

d. The real estate increases in value by \$4000.

e. \$6000 is carried to surplus.

Balance the complete account.

SECTION 4. TWO KINDS OF LIABILITY OF A BANK

From the bank statement it is clear that the bank's liabilities are of two kinds: (1) to the stockholders for the capital stock, the surplus, and the undivided profits; (2) to

the patrons for deposits and for such of the issue of the bank's notes as may be outstanding. In case a bank gets into difficulties and sustains losses, these losses will first come out of undivided profits. If the bank should discount bad paper (that is, buy the right to demand payment of people who would be unable to pay when called upon), it might find itself unable to meet its own obligations to its depositors and note-holders. The liability of the bank to its depositors and note-holders takes precedence over its liability to its stockholders; that is, the claims of the depositors and holders of the bank's notes must be met even if all the resources of the bank have to be exhausted. If all the resources should be used up without satisfying the claims of the depositors and holders of the notes, the law in this country requires the stockholders to contribute further, if necessary, to the amount of the capital stock. For example, take the last bank statement given above. Suppose that the bank should be unable to collect \$250,000 of the paper it had discounted; then the \$45,000 it could collect, added to the bonds and stocks, claims against other banks, and cash, would amount to but \$156,000. Of this amount \$20,000 of the bonds would probably have been pledged already to secure the bank's notes which had been put into circulation. By the sale of these bonds the \$20,000 of the notes could be paid off. That would leave \$136,000 with which to pay depositors. True, the banking establishment might be sold if it were decided to close the bank. Then there would be \$146,000 of assets, assuming the banking establishment to sell for what it cost. Only \$146,000 with which to pay \$294,000. We can see that after all the resources are exhausted the bank would still owe the depositors \$148,000. The bank owes the stockholders \$102,000 for capital stock and surplus, making its total liabilities in excess of its resources \$250,000. Under this statement of facts the stockholders would have no chance

to get back anything they had contributed to the capital stock. Rather the law in the case of national banks would require the stockholders to contribute another \$100,000 toward the payment of the claims of the depositors. This would reduce their claims to \$48,000, which they would have to lose, unless the bank should be chartered by some state which provides for a guaranty of deposits; then the depositors would get their \$48,000 from a fund which had been collected by the state from banks, to be used in just this kind of emergency. The state of Texas, for example, has a law which provides for the guaranty of the payment of deposits in a state bank.

However, the risk of depositors is negligible because they have prior claim to all assets of the bank except the relatively small amounts in this country which banks pledge to secure their note issues. Since the stockholders stand to lose what the bank has earned for them and what they contributed to the capital stock, and even as much more, we may be sure that ordinarily banks are cautious in accepting paper for discount. They carefully look into the business for which funds are being borrowed. As evidence of their conservative management it may be mentioned that only one national bank failed in 1918.

QUESTIONS

1. Discuss the kinds of liability of a bank.
2. Do banks often fail? When they fail do depositors as a rule lose heavily?

SECTION 5. EARLY BANKING IN THE UNITED STATES

Land banks. The early history of banking in this country is characterized by the large use made of the function of issue. Banks put their own notes into circulation by exchanging them for the promises of their customers to pay. These bank notes made up a large proportion of the available

medium of exchange. They were not always protected by adequate reserves of specie, or of securities which might easily be exchanged for specie. In fact, many banks received land in payment of a part or all of the capital stock, and then pledged this land as security for its own notes; that is to say, the bank mortgaged the land in favor of the holders of its notes. Where this was done, if many of the bank's notes came back to it for collection, it would be unable to redeem them in cash. For the bank paid out notes to its borrowers; that is, promises to pay them specie upon demand. The bank would not have the specie, but would have land instead. Land is hard to sell upon short notice; in fact, the sale of land is so slow and uncertain that commercial banks will not lend upon real estate as security. You can see the difficulty a bank would be in when its resources were fixed, not liquid, and its liabilities were current or demanded. Many of these land banks suspended specie payment for their notes from time to time. Then notes, not being convertible into cash upon demand, would depreciate in value, and circulate below par and then within a limited area, if at all.

Wildcat banks. Unfortunately some banks were organized for the one purpose of issuing as many notes as could possibly be exchanged for the individual paper or property of its customers, and with no notion of ever redeeming them. This was a fraudulent practice, and such banks came to be called wildcat banks because they were sometimes located where wildcats were more numerous than people.

The Suffolk Bank. In New England, as in other parts of the country, there was a great variety of bank notes in circulation, issued by different banks. Some of these banks put out notes before the stockholders paid in the specie subscribed to the capital stock, the stockholder merely giving a stock note, a promise to pay in the future. The sounder banks in Boston were as a rule able to redeem their notes when

presented; the country banks as a rule did not redeem their notes promptly. Manufacturers receiving country-bank notes from merchants paid them out to their employees as wages; everyone was willing to pass the country-bank note on to the other fellow; but the convertible notes issued by city banks were kept to make settlements requiring cash. Here we see Gresham's Law in operation, the country-bank notes circulating, while the notes of the Boston banks would come right back for redemption, since everyone knew they were convertible into cash. The worse money drove out of circulation the better money.

This situation was changed through the operations of the Suffolk Bank. This bank decided to redeem in cash the notes of such other banks as kept the specie on deposit with it for that purpose, and in advance of this arrangement to send home to the issuing bank for collection such of its notes as came to the Suffolk. In 1824 the other banks of Boston joined the Suffolk, and made possible the extension of its operations to all New England. The plan adopted required that each country bank should make a permanent deposit with the Suffolk of \$2000 or upwards, according to the amount of its capital, and such additional amount as might be necessary to redeem all its notes that should come to Boston.¹ From the banks which met these conditions the Suffolk Bank agreed to receive at par the notes of any New England bank in good standing. In 1845 Massachusetts forbade by law any bank to pay over its counters any notes but its own. Since a bank could not pay out the notes of any other bank, it had to send at once those it did take in to the Suffolk for redemption. This law enforced the principle that everything a bank pays out over its counter must be readily convertible into specie. The Suffolk Bank system extended the credit of New England banks over a wide territory.

¹ Horace White, *Money and Banking*, fifth edition, p. 295.

It was the underlying principle of the Suffolk Bank system that any bank issuing circulation (that is, notes) should keep itself at all times in a condition to be able to redeem it; that it should measure the amount by its ability so to do; and that the exercise at any time of the right to demand specie of a bank for its bills was something of which the issuing bank had no right to complain.¹

The first bank of the United States. Alexander Hamilton recommended to Congress the establishment of a Federal bank. Acting upon this suggestion enough votes were cast by the followers of Hamilton and of the Federalist party to defeat the Republicans and provide for the bank. It was put in operation in 1791; its capital was \$10,000,000, of which the government subscribed \$2,000,000. By provision of the charter the life of the bank was limited to twenty years, and the charter was not renewed in 1811. One of the greatest services of this bank was in regulating the currency of the country. There were many banks chartered by the different states, many of them being unable or unwilling to redeem their notes in specie. This Federal bank refused to receive the notes of banks not paying for them in specie. This had a most salutary effect upon the banks operating under state charters.

The second bank of the United States. When the charter of the first bank of the United States expired Congress refused to extend the life of the bank. There followed during the second war with England a period of great confusion and uncertainty in our banking history. Finally, in 1816, Congress provided for a second bank of the United States. This bank was also limited by its charter to twenty years, its capital stock was \$35,000,000, of which the government took \$7,000,000. The bank was poorly managed at first, but by 1819 it was in competent hands and was beginning to

¹ D. A. Whitney, *The Suffolk Bank*.

function. The bank paid both its notes and deposits in specie. This enabled it to fulfill one of the principal purposes for which it was created — the bringing about a resumption of specie payments. The bank prospered greatly and was a powerful agency in stabilizing the currency of the country. The officers of the bank became involved in a bitter political struggle with President Jackson, with the result that Congress refused to renew the charter. The bank was then chartered under the laws of Pennsylvania. Its officers in the next few years discounted too much questionable paper and wrecked the institution.

The free bank system. For a long time a charter for a bank could be obtained only by a special act of the legislature. This was changed in New York in 1838, when a law was enacted providing that any group of persons who might comply with the legal requirements could do a banking business. This law as finally amended provided among other things that the stockholders should be individually liable for the debts of the bank up to an amount equal to the par value of their shares, in addition to the amount they had invested in the bank; that the holders of the bank's notes should have the first claim to the bank's assets. The law required a bank to deposit stocks or bonds with the comptroller of the state as security behind the notes the bank would issue. The bank received the dividends and interest from these pledged stocks or bonds so long as it redeemed its notes in specie. Upon failure of the bank to pay specie for its notes the comptroller was authorized to sell the stocks or bonds and apply the proceeds to the redemption of the bank's notes. Too often free banks failed and, because of the poor quality of the securities, the notes could not be redeemed at their face value. Nevertheless this free bank system served as a model when Congress came to set up a national banking system during the Civil War.

QUESTIONS

1. Give an account of early banking in the United States. Why were early American banks often spoken of as land banks? What are the disadvantages of real estate as an asset for a bank?
2. What is meant by wildcat banks?
3. Give an account of the Suffolk Bank. What did it accomplish in New England?
4. Tell of the first bank of the United States.
5. Explain the free bank system.

SECTION 6. THE NATIONAL BANK SYSTEM

In February, 1863, a law was enacted providing for a national bank system, but it was not put into operation until August, 1866. Under this law any group of five or more persons could form an association and apply to the Federal comptroller of the currency for a certificate authorizing them to do a banking business. No national bank could be organized with a capital stock less than \$25,000, and such had to be in places of three thousand or less inhabitants. In a city of fifty thousand or more inhabitants the capital stock had to be \$200,000. The banks were empowered to exercise the functions of discount, deposit, and issue.¹

Each bank was required to deposit with the Treasurer of the United States a certain amount of the registered bonds of the Federal government. Even though the bank would issue no notes, it had to make this deposit of United States bonds. If its capital did not exceed \$150,000, it would deposit bonds equal in amount to one fourth of its capital; if its capital was more than \$150,000, it had to deposit not less than \$50,000 of bonds.

¹ The powers of the bank are limited to the discounting and negotiating of promissory notes, drafts, bills of exchange, and other evidences of debt; receiving deposits; buying and selling exchange, coin, and bullion; lending money on personal security; and issuing circulating notes. — HORACE WHITE, *Money and Banking*, p. 350.

The stockholders were made individually responsible for the debts of the bank to an amount equal to twice the par value of their respective shares. A bank might issue notes not to exceed in amount the capital stock, provided the bank deposited United States bonds to the amount of the note issue. Each bank had to redeem its notes on demand at its own counter. Moreover, it was required to keep on deposit in the Treasury of the United States lawful money equal to 5 per cent of its circulation to be used in redeeming its notes. A tax of 10 per cent was levied on the notes issued by banks other than national. This made it unprofitable for any but national banks to issue notes.

For the protection of depositors the law provided that banks should keep reserves of lawful money equal to certain percentages of the deposits. For cities of 500,000 inhabitants and more the reserve had to be equal to 25 per cent of the deposits; in cities of less than 500,000 inhabitants the reserves were required to equal 15 per cent of the deposits of a bank. These last were called country banks, and were permitted to deposit three fifths of their reserve with an approved bank in a city of 500,000 or more inhabitants, and have this balance count as reserve. The cities of 500,000 or more were called reserve cities, and their banks reserve city banks. St. Louis, Chicago, and New York were designated as central reserve cities, and the law permitted the banks in the other cities of 500,000 or more population to deposit one half of their reserves with the banks of the central reserve cities, and have this balance on deposit count as a part of the required legal reserve.

During the dull seasons of the year country banks would find themselves with more lawful money than was required for reserve. The clients of the bank were not applying for accommodation, and the cash beyond the requirements for reserve was "idle." The banks could get a small rate of

interest on it by depositing it with their correspondents in reserve cities. These reserve city banks in turn would pass on what they did not need to the central reserve city banks, especially those in New York, where the money served as reserve against deposits created by call loans. Certain banks make a business of extending accommodation to brokers and speculators who buy and sell on the produce and stock exchanges. This type of borrower will frequently seek a loan which may be declared due or called at any time the banker sees fit to do so. The reason for this is that the bank makes the loan on the security of stock or bonds or some such collateral. The bank advances about 80 per cent of the market value of the securities offered as collateral. These securities fluctuate in value. In case some happening should cause the market price of a security to fall rapidly, the banker would want to be in a position to call the loan or to demand more collateral. Besides, since the bank's reserves would be made up largely of money borrowed from other banks, it has to be able to return this borrowed money when the depositing banks call for it, just as a bank must be prepared to cash a check for a depositor. In the event that the depositing banks over the country should send in for their money, the New York banks, in returning it, would greatly decrease the amount of their reserves. Since no more lawful money could be had to take the place of that being returned, the deposits would have to be reduced. This could be done at once where a bank had the right to call in loans and have its clients come in and surrender their deposit claims in cancellation of the bank's claim against them.

To illustrate: suppose a New York bank had deposit liabilities to the amount of \$400,000,000. Under the national banking law this would require a reserve in lawful money of \$100,000,000. We will suppose the bank to have borrowed \$50,000,000 of this from banks which did not need it. We

will say that the harvest season sends many farmers and merchants to the country banks, seeking loans to enable them to furnish material and pay the wages required for gathering the crops. In exchange for their promises to pay the bank these local merchants and farmers take deposit accounts. The deposits of the banks are greatly increased. This calls for more money for reserve, consequently the banks send for what they have had on deposit in other banks. Suppose the entire \$50,000,000 of our New York bank be called for by the depositing banks, that would leave a reserve of only \$50,000,000 against deposits of \$400,000,000. That would be but $12\frac{1}{2}$ per cent, whereas the law required that the reserve be 25 per cent. The bank, not being able to get other money, would have to reduce its deposit liability to \$200,000,000. This it could do by calling on its clients to come in and take up their paper.

Under the national bank system money was concentrated in central reserve city banks during certain seasons. It was then an easy matter to get accommodation at a low rate of interest on good collateral, money was said to be "easy." Then during the harvest the country banks sought to increase their reserves by calling back their own money, and sometimes sought to borrow more. Money was then said to be "tight," because the banks, having difficulty in keeping enough money to meet reserve requirements, would be calling loans or refusing to make new loans. If you were a country banker under the old national bank law, and your money was not needed for reserve, you would consider it good business to deposit it with your correspondent in some reserve city and get a small rate of interest on the deposit. Suppose that for one dollar you should get interest at the rate of two cents a year. When your clients came asking for loans you would quickly get that dollar back; for with it as a part of your reserve you would lend, and give to your client in form of deposit account, $\$6.66\frac{2}{3}$.

With loans at the rate of 8 per cent you would be receiving an income on that dollar equal to $53\frac{1}{3}$ cents a year instead of two cents.

In case of loss of confidence, such as comes as the result of the collapse and failure of a great and well-known firm, there is apt to be a scramble for loans. Banks are afraid to make new loans and also often refuse to renew outstanding loans falling due. Country banks become fearful and send to their correspondents for the three fifths of their lawful reserves which they are in the habit of keeping on deposit in city banks. City banks facing these demands send to central reserve city banks for the half of their lawful reserves which they had been keeping on deposit. The result is a run by all the banks of the country upon the few big banks in which the reserves were concentrated. No bank could meet all its deposit liabilities at any one moment. Because it knows that the depositors will not call for cash except in small amounts and from time to time, it can carry small reserves of cash. But a run on any bank almost any day by all its depositors would be disastrous to it. The great banks in New York were really bankers' banks. They held deposits, running into the millions, from correspondent banks. When all these banks telegraphed the same day for their deposits, it meant a tremendous run upon the most important financial institutions of the country. With their reserves depleted the great business interests depending upon them for means of payment would be paralyzed. Such a condition we call a panic.

There were several panics during the era of the national bank system, the most disastrous being in 1873, 1893, and 1907. The old system was ill adapted to meeting such crises, and because of the seasonal stringencies and the occasional crises, the country came to believe that the system was inadequate and would have to be modified.

QUESTIONS

1. Describe the national bank system.
2. Under the national bank system why were bank reserves concentrated in New York City? What were the results?
3. Write a short paper telling of the causes and results of the concentration of bank reserves in New York City.
4. Discuss panics.

SECTION 7. THE FEDERAL RESERVE SYSTEM

In 1913 the Federal Reserve system was provided for by law. Under the new system there are reserve city and central reserve city banks as before, but the reserves of other banks may no longer be deposited with them. New institutions, called Federal Reserve Banks, were created and with them only may the banks of the system deposit their reserves. Twelve Federal Reserve districts were provided. In each of these districts a Federal Reserve Bank was located. The banks took the names of the cities in which they were located; as, the Federal Reserve Bank of Boston, the Federal Reserve Bank of New York, and so on.¹

The Federal Reserve Banks are bankers' banks. They are owned by banks. No individual, no corporation not a bank, can hold shares of a Federal Reserve Bank. Most of the business of a Federal Reserve Bank is with the banks holding stock in it. The member banks receive dividends on their shares up to 6 per cent, all earnings of the Federal Reserve Banks beyond 6 per cent going to the government, except that half of such earnings must be set aside to surplus until that amounts to 100 per cent of the stock.

Federal control. A Federal Reserve Board has the general supervision of the twelve Federal Reserve Banks. This

¹ The twelve cities in which the twelve Federal Reserve Banks were located are Boston, New York, Philadelphia, Cleveland, Richmond, Atlanta, Minneapolis, Chicago, St. Louis, Kansas City, Dallas, and San Francisco.

board is made up of seven members, five of whom are appointed by the President of the United States, the other two — the Secretary of the Treasury and the Comptroller of the Currency — being members *ex-officio*. The Board is empowered to examine the accounts and look into all the affairs of the Federal Reserve Banks. It appoints three of the nine directors of each bank; it may remove any officer or director of any one of the twelve banks; and it may suspend reserve requirements, and do anything else that may come under the head of general supervision.

Reserves. From the name Reserve Banks one would expect that these would be banks in which other banks would keep their reserves. And that is exactly the case.

The law of 1913 lowered the amount of reserves required to protect deposits. Some thought the reduction too great. But bankers who thought so kept the reserve which they believed to be required by prudence. Many argued that all the reserve should be on deposit in the Federal Reserve Banks. This was ordered by an amendment to the law in 1918, which further reduced the required percentage of reserves to deposits.

Federal Reserve notes. With the permission of the Federal Reserve Board a Federal Reserve Bank may issue circulating notes. These are called Federal Reserve notes. On November, 1918, there were outstanding \$2,958,000,000 of them. These notes are printed by the Federal Bureau of Engraving, and have the appearance of national bank notes and other paper money commonly spoken of as greenbacks. They are by law obligations of the United States government, and may be redeemed at the Treasury of the United States at any time the holder may wish. There is no limitation to the amount of the notes or to the conditions under which they may be issued, except such as may be imposed at the discretion of the Federal Reserve Board. The notes are

secured by a reserve of lawful money equal to 40 per cent of the issue and by commercial paper equal to 60 per cent of the issue. They are put into circulation when needed, and are retired after they have served their purpose. They are designed to make our monetary system more elastic and our credit system more serviceable.

Let us take a seasonal demand for expansion of credit — the harvest time. Farmers and merchants, in anticipation of the harvest, need supplies and funds to pay for wages. The local banks, we will say, have extended as much accommodation as they deem prudent with their existing resources, but they take commercial paper to the Federal Reserve Bank and have it rediscounted. The Federal Reserve Bank, in other words, makes loans to local banks, taking their commercial paper as collateral. If the Federal Reserve Bank has not the money to lend local banks, it gives them Federal Reserve notes, secured in part by a pledge of the commercial paper received from the banks. The local banks pay out the Federal Reserve notes over their counters to merchants and farmers or on the order of those to whom loans have been made. These notes circulate as money. The harvest is gathered, the crops sold. The farmers and merchants receive for crops and goods these circulating Federal Reserve notes; they deposit them in the banks. The banks send them in to the Federal Reserve Banks in payment of their obligation and secure the release of their commercial paper, which is being paid off by clients. The Federal Reserve Bank destroys the returned notes. Having served their purpose they disappear. In another crisis or stringency others will be called out by the process just described. It is hoped that the elasticity of currency thus provided will go far toward preventing panics.

QUESTIONS

1. Make a list of differences between the national bank system and the Federal Reserve system.
2. Make a list of the characteristics of the Federal Reserve system.
3. What is a Federal Reserve Bank? What is done with its earnings?
4. Tell how the Federal Reserve Bank is constituted. What are its duties?
5. What reserves are national banks now required to keep? Where must they be kept?
6. What are Federal Reserve notes?
7. Explain how Federal Reserve notes came into existence. Show what becomes of them.

SECTION 8. DOMESTIC EXCHANGE

The essential feature of all exchange operations is the transfer of purchasing power from one person to another. These persons may be in the same community, or in different cities of the same country, or in different countries. If they are within the same country, we say that a transfer of funds from one to the other is an example of domestic exchange.

Domestic exchange may be divided into three classes:

1. Exchange between two patrons of the same bank. This is the simplest form, and there are many such transactions. We will suppose that Smith and Jones are both depositors of the same bank, and that in settlement of some transaction Smith gives Jones a check for \$100. The bank merely deducts \$100 from Smith's account and adds that amount to the balance of Jones.

2. Exchange between patrons of different banks in the same city. We will say that Smith is a depositor in the First National Bank and that Jones is a depositor in the City State Bank. Smith draws a check for \$100 on the First National Bank and gives it to Jones, who deposits it in the City State Bank. The City State Bank credits the account

of Jones with \$100 and sends the check for collection to the First National Bank, which pays the amount and charges Smith's account with \$100. Now in the course of a day's business the First National Bank will come into possession of checks drawn against the City State Bank, and the City State Bank will receive from its depositors checks paid to them and drawn on the First National Bank. If the First National Bank came into possession of \$800 of checks drawn against the City State Bank, and on the same day the City State Bank came into possession of \$900 of checks drawn against accounts in the First National Bank, these banks could settle their claims against one another by merely offsetting the checks; that is, the messenger of the First National Bank upon presenting for collection \$800 of checks to the City State Bank would be confronted by \$900 of checks drawn against accounts in his own bank. By paying the City State Bank \$100 in cash and giving it the checks drawn by its depositors, the First National Bank would receive the checks drawn against it by its own depositors. Naturally the number of exchanges of this sort is very large.

This kind of exchange gives rise to the process of clearing. Where there are enough banks in a community a clearing-house is established for convenience in assorting and offsetting the claims of each bank against the others by reason of checks received which had been drawn by the depositors in the respective banks. The clearing process consists of a joint meeting by the representatives of associated banks for the exchange of claims which the various banks hold against each other, and the payment or receipt of the difference between the claims and the obligations of each bank. If there are a dozen banks in a given community, each will be pretty certain to receive each day from its depositors checks drawn upon each of the other banks. Originally each bank sent a messenger to collect from the other banks the checks drawn upon them.

Much time is saved when the messengers from the different banks meet at one place and each there settles with every other.

This saves time, but does not greatly decrease the amount of cash needed in making the settlements. Further economy of time and of cash is effected when each settles with some outside party like a clearing-house instead of settling with each other, and each pays, instead of the amount owed to every other member bank, only the difference between the total amount owed to and the total amount due from all the other banks.

The clearing principle is a process of settling for differences. It is used in businesses other than banking. Members of the Stock Exchange and of some of the great produce exchanges settle for their daily transactions through a clearing-house.

The usual method of organizing for clearing is to have the banks of a community agree on a common meeting-place, where their representatives gather at a regular hour to exchange the claims which each holds against the other banks of the community. The difference between the amounts owed to and by the bank in question is the amount such bank either pays or receives from the clearing-house. In communities where there are only a few banks they do not undertake to maintain a separate building and organization devoted exclusively to clearing. In such places the representatives of the different banks meet alternately on the premises of the several banks. Where the volume of clearings becomes large it is found economical to establish a clearing-house.

When a clearing-house is established each bank keeps a cash deposit with it. Each day on the books of the clearing-house each bank is credited or charged with the difference between what it owes all the other member banks and what is due it from such banks. One day the First National Bank

may find that the difference in its favor between its claims against the other banks and their claims against it is \$1000. In such case the balance of the First National Bank with the clearing-house would be increased \$1000. The next day the claims of the other banks against the First National Bank might exceed its claims against them by \$1200. In such case the balance of the First National Bank with the clearing-house will be reduced by \$1200.

Clearing-houses were first established in this country in New York in 1853, in Boston in 1856, in Philadelphia in 1858, in Chicago in 1865, in St. Louis in 1868. Now in nearly every town with half a dozen or more banks some arrangement is made for the daily clearing of items. There are over a hundred clearing-houses. In 1920 the New York Clearing House Association consisted of about sixty banks located in New York City, including the Federal Reserve Bank of New York.

The advantages of establishing the mechanism for clearing or exchanging checks and other items are:

a. A reduction in the amount of money required to carry on business. The amount of money used in making settlements by the New York Clearing House during sixty-one years was only 4.6 per cent of the total exchanges. During that time exchanges were settled, amounting to \$2,509,034,041,053, by using only \$117,797,140,257 of actual money.

b. A reduction in clerical help.

c. A lessening of the danger of loss or theft.

d. A great reduction in the time required to effect exchanges.

3. The third form of domestic exchange arises when a check is drawn on a bank in one city and is sent to someone in another city who deposits the check for collection there in his own bank. Suppose that a student in the University of Texas should draw a check on a bank in Austin and send it to Brown, Smith & Co., who deposit it to their credit in

a bank in New York. Upon depositing the check, Brown, Smith & Co. obtain from the bank in New York the right to draw in money the amount called for. How then would the bank in New York reimburse itself? This is an important question, for it arises several million times every year. With all sorts of products being shipped from one section of the country to another, with banks in every town and city, with more than 90 per cent of all commercial transactions effected by the use of checks, a vast number of checks are constantly in transit from one part of the country to another. These are cleared through the great city banks.

In the illustration just used the bank in New York, finding itself in possession of a check drawn on a bank in Austin, Texas, could send the check to the bank in New York City with which the Austin bank keeps a deposit account. The correspondent of the Austin bank would pay the check and deduct the amount from the balance of the Austin bank. It would then send the check back to Austin, and the bank there would subtract the amount from the balance of the depositor who drew it (the student in the case) and return it to him.

In transacting business at a distance, instead of sending a personal check, one saves trouble for the banks, and, in case he is unknown to the seller, one often saves delay as well, by buying exchange and forwarding that. This means sending a draft instead of a check. A check is drawn by an individual against a credit which he has created by a deposit with a given bank; a draft is drawn by a banker in favor of an individual or a firm against a credit which the bank has created by a deposit in some other bank. A draft is a banker's check. An individual buys a draft because the bank drawing it is better known than he, and more particularly because the bank against which it is drawn is a great institution in a large city. As an example, suppose that a bookstore buys \$1000

worth of books from a publisher in New York. The manager of the bookstore could give a draft for \$1000 drawn by his local bank in favor of the publishing company against a bank in New York City, say the City National Bank. He would send the draft by mail to the publishers. They would deposit it with their bank. It would, through the clearing-house, be presented for collection to the City National Bank, against which it was drawn. The City National Bank would honor the draft because the bank which drew it would have a deposit account with the City National Bank. The City National Bank would deduct the amount of the draft from the balance of the bank drawing it, and return it with a statement of account.

The word "draft" is used also for a different sort of instrument, payable at some future date, perhaps sixty or ninety days from the day it is issued. Such drafts are called "acceptances" when payable within the United States, and are called "bills of exchange" when payable in foreign countries. Such instruments arise out of commercial transactions and are useful in making commerce easier. For example, a merchant in Salt Lake City may buy \$10,000 worth of goods from a jobber in Chicago. Instead of an immediate payment, by agreement between the two parties the jobber, or his bank in Chicago, draws a draft for \$10,000 payable in sixty days at the merchant's bank in Salt Lake City and chargeable against the merchant's account in that bank. This draft is forwarded at once, perhaps with the bill of lading for the goods, to the Salt Lake City bank. Because of a previous understanding with the merchant, the bank "accepts" the draft: that is, writes the word "accepted" across the face of the draft and signs it. This means that the bank agrees to pay the draft when due, and it means that two persons are responsible to the jobber for the payment of it. The jobber, or his bank, then sells (discounts) the acceptance to someone

who wants the interest. Before doing this, he must indorse it, so that three persons are responsible to the buyer for the payment of the acceptance. It may be resold several times in the course of the sixty days, and in such case acquires strength with each transfer, since each holder must indorse it before passing it on, and the holders are successively responsible for its payment. At the expiration of sixty days the owner of the acceptance presents it through his bank to the accepting bank for collection. In the meantime the merchant has sold the goods and received payment for them. He gives his check for \$10,000 to the bank; and the bank pays the acceptance. By this means the jobber received cash for his goods; some investor received interest; the merchant got possession of the goods and sold them; the merchant's bank may have received interest from him.

Acceptances arise from trade. Goods shipped East give rise to acceptances drawn on Eastern banks; goods shipped West give rise to acceptances drawn on Western banks. Goods shipped from New York to London give rise to bills of exchange drawn on London banks; goods shipped from London to New York give rise to bills of exchange drawn on New York banks. Through systems of clearing these acceptances and these bills of exchange offset one another, so that little actual money is used in effecting business transactions.

If it were possible to have one great bank for the entire nation, on the books of which every individual, every firm, and corporation had an account, all transfers of purchasing power from one person to another, no matter where located, could be effected by book entries. We have approached toward this ideal through the Federal Reserve system. Each of the twelve Federal Reserve Banks acts as a clearing-house for most of the transactions within its district. These twelve great banks clear through the agency of the Federal Reserve Board at Washington.

QUESTIONS

1. Explain what is meant by domestic exchange.
2. Name and explain each class of domestic exchange.
3. What is a clearing-house? What economies are realized by using a clearing-house?
4. A country merchant ordered a bill of goods from Chicago. These were sent in two installments. He remitted for both shipments at the same time, sending a draft in payment of the first installment and his personal check in payment of the second. Which was the more economical form of payment? Why?
5. What is an acceptance? Illustrate how acceptances come into being.

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CHAPTER X

PRICES

SECTION I. IMPORTANCE OF PRICE

Prices are of great importance. The price of a thing is the expression of its value in terms of money. Price results from the comparison of the value of the thing priced with the value of money. A wage-earner receives a price for his services; he, in turn, pays a price for each of the satisfactions he buys. How many satisfactions he can purchase with the proceeds of his wages depends upon the price he receives for his services and the prices of the goods he desires.

Everything that comes to the market is priced. By means of price people compare one thing with another when compelled by circumstances to choose between them. The value of money being known, other commodities, values of which are not known, are compared with each other in terms of money. A tractor is invented, manufactured, and offered to the farmers. At once an interested farmer asks its price. If he finds it priced at \$1000 he at once compares it with the price of the teams and farm machinery it would replace. He also seeks to estimate the cost of its operation and upkeep with the cost of feeding teams and keeping harness in repair. If a new automobile is offered as the best in quality, its price is asked, and in terms of price its proposed advantages are compared with those of other well-known cars.

Expenses of producing, of transporting, of storing, of financing, of selling, are all estimated in terms of money; that is, in price. Every producer, every banker, every shipper,

every merchant, every consumer, is concerned about the price of the things or of the services he furnishes or desires. Innumerable conflicts arise over what prices should be. Untold energy is expended in efforts to foretell what prices will be. This is because prices are not as simple as they are important. Price is the result of complex forces.

QUESTION

1. Define price. Illustrate its importance.

SECTION 2. THE MODIFIED QUANTITY THEORY AS AN EXPLANATION OF PRICE

Let us now turn to an analysis of the forces entering into price. In the study of money it was stated that under the simplest conditions prices vary exactly with the quantity of money. We observed then that there are limitations to this statement. In view of such limitations it would be more accurate to say that prices are determined by the relation between the quantity of goods and the quantity of purchasing power in terms of money; that is to say, if the quantity of goods offered for sale is given, the general range of prices depends on the amount of purchasing power in terms of money. But the amount of purchasing power is not the same as the amount of the specie used as the standard. The amount of purchasing power in terms of money is the quantity of the specie used as the standard plus the paper money in circulation, such as bullion certificates (gold and silver certificates), and credit notes, such as greenbacks, national bank notes, and Federal Reserve notes, plus all subsidiary coinage and token money plus bank deposits. Gold, silver coins, gold and silver certificates, greenbacks, bank notes, subsidiary coins, token money, and bank deposits, in this country, all go to make up the total value of purchasing power expressed in terms of money.

As has been remarked before, the value of money is determined just as the value of any other commodity. Money is a good the value of which is universally known. The value of other goods can therefore be conveniently expressed in terms of money. The supply of money at any definite time is fixed. Any quantity of any other commodity may be compared in value with a unit of the money. If the unit be a dollar, the comparison results in pricing the other goods in dollars; if the unit be a pound sterling, the price will be expressed in pounds and fractions thereof; if the unit be a franc, the price will be in francs; and so on. The unit (dollar, pound, or franc) serves as a measure just as a yardstick. It may be used millions of times in the course of a day and hundreds of billions of times during a year.

Using the unit does not involve the actual handling or passing of money. Just as a single yardstick laid off on a merchant's counter may be used to measure hundreds of bolts of cloth, so the concept dollar, or pound, or franc, or mark may be used again and again in expressing the value of goods without the passing of actual coins. The coins exist. Their amount is easily ascertainable. They are used over and over again in transactions. Everybody knows the value of each coin, consequently a man who possesses no money may price his goods in terms of money. He merely states how many dollars his horse or automobile or house in his opinion should bring if exchanged for dollars. He may sell it and receive a check, or he may exchange his goods for other goods, as in the case of the farm wife and the grocer as referred to above. The value of all the wealth in a nation may be expressed in terms of money. We may say that the wealth of the United States is \$300,000,000,000. This does not mean that \$300,000,000,000 of money is in existence; in fact, only \$2,620,070,085 in gold was in existence November 1, 1921. And all money in the United States amounted to \$7,785,135,000.

QUESTIONS

1. What items sum up the total purchasing power of the country?
2. Which is greater in amount: the total supply of money or the total of bank deposits at a given time?

SECTION 3. THE CREDIT THEORY, AS AN EXPLANATION OF PRICE

Price is a ratio. It is the ratio of the value of a thing to the value of the money for which it would exchange. Since price is a ratio between two values, it is the result of all the forces which determine the value of the thing priced plus all the forces which determine the value of money. All the possible forces affecting the price of one article like leather may be stated as follows:

I. On the side of gold:

1. Lowered expense of acquiring, or increased supply of gold.
2. Decrease in the existing supply of gold (or greater expense of mining).
3. Increased demand for gold.
4. Diminished demand for gold.

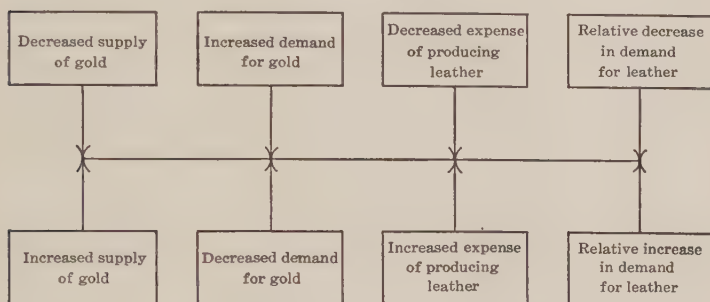
II. On the side of leather:

1. Lowered expenses of production (or possible increase of supply under competition).
2. Increased expenses of production, or monopoly.
3. Increased demand for leather (from owners of other goods).
4. Diminished demand for leather (from owners of other goods).¹

Professor Laughlin has arranged these eight sets of forces so as to show which of them work to depress the price and which work to raise the price. The resulting movement of the price of leather will be up or down, according to the relative intensity and power of those below as compared with those above. One single cause above may do more to

¹ For a discussion of these eight sets of forces see Laughlin, *Principles of Money*, chap. ix.

lower the price than all those below when combined to raise the price.¹ "Price, in any one case, is the concrete result of



such union of the above forces as the condition of the arts, the needs of the community, the monetary habits of the world, industrial combinations creating monopoly, exhaustion of sources of supply, increase in taxation, and the like may determine."

QUESTIONS

1. Try to formulate a statement of the credit theory of price.
2. Make a diagram showing the forces which determine the price of sugar. Which of these forces do you think is the strongest at present?

SECTION 4. MARKET PRICE

Let us now discuss the phrases "market price," "normal price," "monopoly price," and "speculative price."

Market price is the price at which goods actually sell. The purpose of a price is to insure the sale of goods. The price at which the goods will be taken is arrived at by experiment. Through trial and error the owner of goods gropes toward the

¹Laughlin, Principles of Money, p. 352. Professor Laughlin is an able critic of the quantity theory of money. His explanation of price is therefore put here, following Taussig's modified quantity theory.

correct price, the one which must insure the sale of the goods, the result of the sets of forces mentioned above. Where competition is free one seller will approach nearer the correct price than others, and if all be too high, he will get the patronage and force the others to follow him in settling prices. If some be too low, they will get patronage until forced out of business, when the competing buyers will turn to the surviving sellers who had their prices high enough to cover costs.

Goods are in competition for the patronage of given buyers. When a particular good is priced, the buyer at once compares it with the price of other goods, such as hides, or even coats and sacks of flour. If some commodity like apples becomes scarce, its price may not soar, because buyers will substitute other fruit for the apples; and if other fruit be plentiful, the result of a scarcity of apples will be some increase in their price and also a strengthening of the price of other fruit. If wheat be scarce, it will not advance nearly so much if there be a good crop of corn and oats as it would if other grains were likewise scarce; but the scarcity of the wheat will tend to raise the price of all substitutes for wheat. This competition of all goods for the purchasing power tends to steady prices. It results in a continuous comparison of prices of different goods both by sellers and by buyers.

Buyers are ordinarily in competition among themselves for goods. Competing buyers are not on an equality in their control over purchasing power. To the same market come the millionaire and the unskilled wage-earner. Persons with an income of a thousand dollars a month are not affected by the scarcity of wheat flour. They will buy what white bread they want at almost any price. But the man whose pay check is only twenty dollars a week is greatly affected by an advance in the price of flour. The bakers must take into consideration the number who have limited incomes who will turn to substitutes if bread be increased a penny a loaf. They

dare not advance the price to where they will eliminate so many who would otherwise be purchasers that they cannot sell the bread made of the available flour. Buyers may be classified according to standards of living. As prices of some goods advance whole groups of buyers (compelled by small incomes to maintain relatively low standards of living) are eliminated from the possible purchasers. We may conclude that market prices tend to uniformity and correspond with the personal prices of those who are least eager to buy or to sell, but who nevertheless succeed in buying or selling.¹

QUESTIONS

1. Explain the term "market price."
2. Where should you look to find the market price of farm products? of stocks and bonds?

SECTION 5. NORMAL PRICE

Observation shows that prices fluctuate. If they do not, it is usually because of monopoly. The government can fix the price of postage stamps; a street-car company can maintain a definite fare for a long period. But goods dealt in by those in competition fluctuate in price. The prices of perishable commodities fluctuate more widely than do the prices of those goods that are relatively imperishable. The prices of strawberries, of tomatoes, of cabbages, of potatoes, of eggs, vary more than do the prices of wheat, of corn, or of copper. However, improvements in transportation, in the facilities for storage, and the widening of the market have done much to lessen the range of price fluctuations. Where storage and transportation enable a commodity to be preserved for months and shipped to any port of the world, the market for that commodity becomes world-wide and the price rather stable. During the World War for lack of ships

¹ See Johnson, *Introduction to Economics*, p. 36 ff.

wheat could be shipped to western Europe from America only. Moreover, the supply of wheat from the wheat lands of Europe was cut off, consequently wheat prices in the United States fluctuated rather violently according to the amount of the yield and the prospects of getting it to western Europe. In order to make sure of enough wheat, regardless of the effect upon price of shipping conditions, the government fixed the price at a relatively high figure. The price in Europe rose above the price guaranteed by the government to American farmers. But with the world at peace, and with ships moving undisturbed through all the seas, and railroads bringing grain to the ports of Australia, Argentina, Russia, Canada, and the United States, the price of wheat tends to be much more uniform, the difference in the price between countries being largely explained by differences in transportation costs.

A study of price fluctuations has convinced economists that competitive prices tend toward a theoretical level and that every deviation from this level is followed by a reaction. Cotton in the southern states was selling for about six cents a pound in the autumn of 1914. Everyone said that was too low. If the price had continued at that figure, cotton culture would have been abandoned in large measure. In the autumn of 1918 cotton in the South was selling for forty cents a pound. Then people said cotton was too high. Was it wise to buy farm lands on the basis of forty cents a pound for the cotton it would yield? If any were unwise enough to do so, they will have years in which to repent their haste, for cotton soon fell to a much lower price. Extremely high or low prices are temporary. When a price deviates from the theoretical level, the deviation is followed by a reaction.

This theoretical level is called the normal price. The normal price just covers the expenses of production. The law of normal price is that price tends to equal the cost of

production for all goods produced under conditions of free competition.

Deviations from the normal level of prices are corrected quickly or slowly according to the ease or difficulty with which expansion and contraction of production take place. During the spring of 1920 buyers in great numbers refused to take ready-to-wear clothing at the prices quoted. Someone started a fad for blue denim. Organizations of college boys voted to buy denims instead of spring suits. Many laboring people and others took up the fad. For a few days the demand for overalls was unusual. Rush orders were wired to factories. Prices of denims increased. The fad was short-lived, and goods of this class soon fell back to the old prices. If the increased demand had proved permanent, the factories are of such a character that they would have been enlarged readily and prices within a short time would have fallen to about what they were before the sudden increase in demand for denims. It is relatively easy for expansion or contraction to take place in the production of overalls. But suppose the fad had been for a particular kind of pleasure car. The price of that car would have deviated sharply from the normal. The deviation would have continued for quite a while because it takes considerable time to assemble and set going an automobile factory. If the car, however, had been an "assembled car" (that is, one the parts of which could be manufactured by factories already in operation), the deviation would have been shorter in duration. In 1920 the demand for automobiles became much less than it had been for several years. Within a few months prices greatly decreased; in some instances they failed to equal the expenses of production. That is a condition which could not continue long without forcing the factories to close down or to curtail their output greatly. Many automobile factories did close down or curtail output during the months they were

seeking after an adjustment between prices and the expenses of production.

Deviations from the normal price level are greatest where production requires antecedent preparations extending over a period of years. In 1920 a farmer in the Rio Grande valley sold his orange crop for \$250 an acre. Land just as good as his could be bought at that time within the irrigated district for \$200 an acre. The cost of putting out the trees and caring for them until they would bear would have been about \$200. Is not \$250 an exceptional return upon an investment of \$400? Yet people did not rush to the Rio Grande valley in great numbers, attracted by the profits of orange-growing. It takes years to develop an orange orchard; then there are difficulties from frosts and pests which cannot be foreseen.

In agriculture the law of normal price is often interfered with. Prices of agricultural products often deviate sharply from the normal level. This is because of the uncertainties of the seasons. A low price may cause a reduction in the acreage of a particular crop, yet the seasons may be so favorable that the crop will be larger upon the reduced acreage than before. A high price for wheat may cause more land to be sown in wheat. Yet the season may be so unfavorable as to cause a less total yield than the year before, or it may be so propitious as to cause an unusual crop. And if the seasons happen to be favorable in every country, the unexpected increase in supply may force prices down to where the tremendous yield will bring much less than did the smaller crop of the year before.

While the acreage of particular crops is to some extent adjusted to prices, yet the value of agricultural production remains relatively uninfluenced by changes in price. The farmers cultivate the land from year to year regardless of how much or how little they receive. If, as the result of the

caprices of nature or the disturbances of a world war, they receive prices above the normal, the nonfarming population is disposed to complain; if, for such reasons, they must take prices below the normal level, they themselves become discontented.

The following table indicates how the total values of farm products have fluctuated in the United States since the recovery from the depression of the nineties.

YEAR	VALUE OF ALL FARM PRODUCTS IN MILLIONS OF DOLLARS	VALUE ADDED BY MANU- FACTURE IN MILLIONS OF DOLLARS
1899	\$4,717	\$4,831
1904	6,122	6,293
1909	8,558	8,529
1914	9,895	9,878
1919	24,982	25,500
1921	12,000 (about)	12,000 (about) ¹

Taking the prices of 1913 as 100, farm prices in 1921 were 119, while the level of 1920 was 182 and that of 1919 was 240. In 1921 the level of wholesale prices was above 150.

It is curious that, year by year, there is such a correspondence between the total valuation of farm products and those added by manufacture. In 1921 the total output of American factories was estimated at but 70 per cent of normal;² that is, the crops from all the farm land had on the market that year the same value as 70 per cent of the normal output of factories. Prices of manufactured goods were proportionally higher than farm products. It seems, on the whole, that during that year prices of farm products were below the normal level, while prices of manufactured products were

¹ See the article by David Friday in the *New Republic*, December 28, 1921, Vol. XXIX, No. 369.

² See the article by David Friday in the *New Republic*, December 28, 1921, Vol. XXIX, No. 363.

nearer the normal level and tended above it. Some further principles are as follows:¹

Where several commodities are the result of a single process of production, it is not possible to determine the cost of each one separately. The group as a whole has a normal price, while the separate commodities have not.

The cost of production varies from establishment to establishment. At any given time normal price is determined by the costs of those who produce under the greatest disadvantages, or the marginal producers.

In the long run competitive prices tend toward the level of cost of the most efficient producers.

QUESTIONS

1. Define normal price. Can it always be ascertained?
2. "Rising prices seem to cause prosperity, falling prices adversity." How far, if at all, are the real consequences different? (D. and D.)

SECTION 6. MONOPOLY PRICE

In the discussion of normal price we assumed free competition. Where monopoly obtains, prices may be made to deviate permanently above the cost of production toward which they would tend under competitive conditions. Monopoly is the power to control prices. It may arise (1) from legal action, as where a patent or a copyright is granted. (2) It may be due to physical limitations of supply. The most easily available iron ore is found in the Lake Superior deposits. Anthracite coal in this country, so far as we know, is confined practically to a few square miles in Pennsylvania. (3) Monopoly may be due to combinations for the purpose of avoiding competition. Our so-called trusts furnish examples. Partial monopoly is often achieved by private persons who

¹ For a discussion of these principles see Johnson, *Introduction to Economics*, pp. 54-59.

enter into agreements fixing prices or limiting the supply to be put upon the market. Complete monopoly is not often achieved. There is fear of possible competition even where it is practically realized. We have many businesses which are monopolistic in character by reason of their technical requirements. Railroads, state railways, telephone systems, gas-works, waterworks, telegraph systems, power and light plants, pipe lines, packing-houses, steel mills, sugar refineries, are examples of businesses requiring vast investments of capital. In these cases it would be wasteful to duplicate investments in order to have competition, and such competition when brought about often causes ruin and bankruptcy. But the most subtle monopolies are those that result from private understandings of persons concerned.

A complete monopoly will fix prices at a level that yields the maximum return above all costs. This was explained when we were studying value under monopoly conditions. The monopolist discovers through experiment the price that yields the greatest profit. If he sets the price too high, not enough goods will be taken to pay the cost of producing them; if he fixes it too low, he can sell greater quantities of goods, if the demand be elastic, but the profit upon each unit will be so low that the total profit will be unsatisfactory to him — unsatisfactory, because by raising the price to a certain figure his profit per unit, multiplied by the number of units that will be taken at that price, equals the maximum possible profit from the business. The Standard Oil Company, with its subsidiary and allied companies, has had a practical monopoly upon the sale of kerosene. They have sold it at prices lower than those before they came into the field. They have done this not as philanthropists, but because at about twenty cents a gallon that quantity of oil will be taken which, multiplied by the profit per gallon, will give the largest possible profit from the business. They have done what any

other group of practical business men would have done: they have controlled the price in the interest of their profits. But the interests of monopolists do not always coincide with the interest of consumers. Where the demand is elastic it is important that goods sell for cost of production. If they sell as low as that, great quantities will be taken; but if through monopoly the prices are raised above the normal level, fewer units will be consumed.

QUESTION

1. Define monopoly price. How does it differ, if at all, from market price? from normal price?

SECTION 7. SPECULATIVE PRICE

We have no perfect market. Ignorance, overconfidence, and folly keep men from acting as we sometimes assume they act in buying and selling. Production is now in large measure carried on in anticipation of demand. Demand may change while goods are in process of manufacture. The caprices of nature, miscalculations of processes, sudden changes in demand, make risk inevitable and cause prices to vary from the normal level.

A speculative price is the difference between the normal price and the actual price which market conditions at the time enable the seller to charge and compel the buyer to pay.

QUESTIONS

1. Define speculative price.
2. Illustrate speculative price with concrete instances.

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CHAPTER XI

FOREIGN TRADE

SECTION I. THE OCCASION FOR EXCHANGE

Facilities for exchange make specialization possible; specialization makes exchange necessary; exchange is the mere giving of one product in return for another. A farmer in a lonely cove might be much more interested in cultivating his orchard and garden and small patch than in tending sheep, but the distance from his cove to other communities might be so great as to compel him to keep a few sheep for his wool supply. But let another man move into the cove more interested in stock-raising than in growing crops. He would be able to look after enough sheep to meet his own and his neighbor's needs; that is, he would exchange wool and mutton for the corn and fruit and vegetables of his neighbor. These two neighbors could get together. Exchange between them would be possible. This being true, each could follow the bent of his individual desires and become a specialist: one a sheep-grower, the other a tiller of the soil. This specialization would make exchange between them necessary in order for the shepherd to have corn and vegetables and fruit and the farmer to have wool and mutton. Other families might find their way to this cove. They would all till the land and perhaps keep some live stock. But some one of them might have a knack for tending bees and find himself with more honey than he could use, whereas his neighbors would have little or none. Some of them would be successful in

raising berries or potatoes or chickens, or some housewife could make cheese, or bread that would be the talk of the neighborhood. Consequently there would be exchange of honey or berries or potatoes or chickens or cheese or bread for some of these or other products. In time one of the farmers would put in a water-mill and grind his neighbors' corn, and thereby earn corn for himself without the trouble of raising it. Some woman would become respected for her skill in nursing the sick and in prescribing remedies. Some farmer might have the gifts of the exhorter and occasionally preach to the people. Some newcomer among the young women might like teaching and gather the children together in a little school for a few weeks or months of the year. These services of the farmer preacher, the housewife nurse, and the farm-girl teacher would be paid for by such goods as the isolated community could afford from the surplus of its few members. Much of the pay might be intangible, as applause, respect, or gratitude. But someone would send each of these embryonic specialists an occasional basket of apples, a peck of meal, a can of honey, a cut of beef or mutton, or a new piece of cloth. In this isolated settlement there would be opportunity for exchange of goods among the few inhabitants. As the people became more numerous the opportunities for specialization would increase.

But this lonely settlement would not be satisfied with the goods produced by its own members. The people would long for a greater variety of satisfactions. They would regard as necessities some things they could not produce, such as gunpowder, rifles, or steel axes. They would perhaps make tallow from the fat of their animals, beeswax from the honeycomb, and send some of their men out of the cove, over the mountains, with these products to some distant city beside a river or bay, where they could exchange their little surplus for what they would regard as pressing necessities.



A BUSY HARBOR WHERE STEAMSHIPS AND RAILROAD MEET

At this port goods are assembled from a wide extent of territory and shipped to all parts of the world

But how came this city to be available to the dwellers in our mountain cove? Perhaps a hundred such coves would each year send out their tallow, pelts, and beeswax. More accessible localities producing other things in abundance would also seek a place to exchange their surplus for things they could not well produce themselves. In the city down by the river or bay the people from these many localities can meet and each exchange what he has for what he has not.

But why was the city built by the river or the bay? Into the bayou, up the river, could come ships from distant lands, bringing the products of many and strange peoples — spices and silks, fruits and fabrics, silk from China, pepper from India, diamonds from Africa, porcelain from France, coffee from Brazil, woolens and cottons, steel and bronze, from the mother country. That is to say, in a place where a ship can anchor in safety, the goods of many lands can be displayed and offered in exchange for such surplus as the people living for miles and hundreds of miles back from the harbor may bring down to the port.

Why should a ship ever come into a harbor? It is expensive to build and operate ships. Of course they sail because people have a surplus of goods, or goods which they do not want as much as they want some other goods produced by other peoples, and are willing to pay for what they want more. The Chinese export silk not because they cannot use the silk, but because there are other things they want more and which they either cannot produce at all or cannot produce for as little as is required to produce the silk that will exchange for them. The Brazilians export coffee because they can raise much more of it than they can use, and because people in parts of the world where coffee will not grow want their coffee and have commodities which will not grow in Brazil and which the Brazilians want. The people of our Southland raise millions of bales of cotton each year,

not because the Southern people need all the cotton for their own use but because hundreds of millions of people in countries where cotton will not grow need it and have goods to give in exchange for it which the Southern people want and either cannot produce or else cannot produce for as small expense as they can grow the cotton which will purchase them.

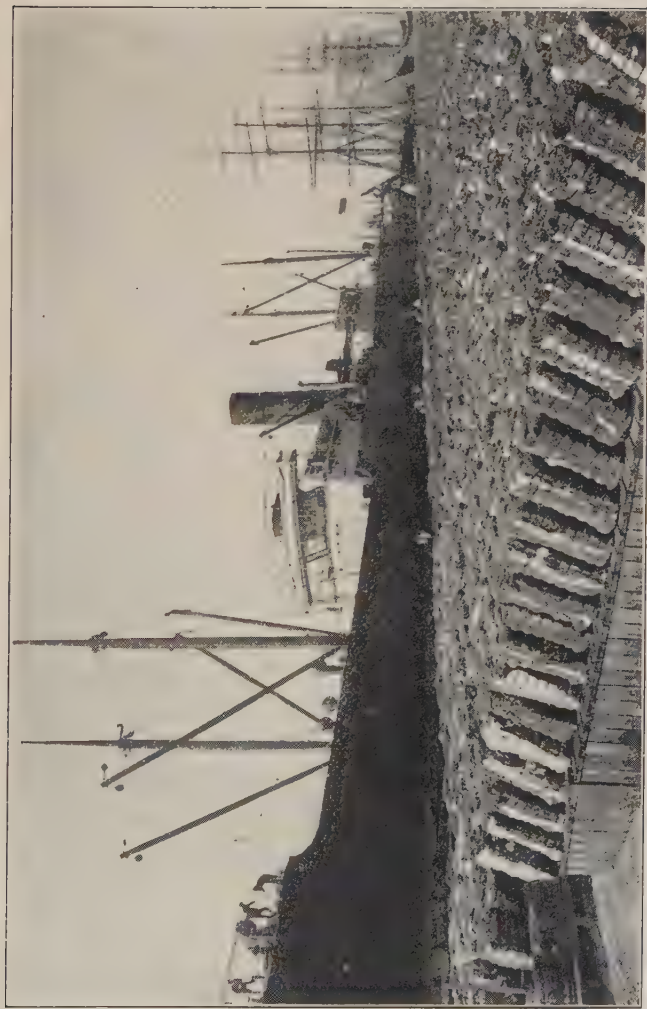
QUESTIONS

1. Does specialization presuppose the facilities for commerce?
2. Does economic self-sufficiency presuppose isolation? Is it because of isolation? Will it result in isolation?
3. Why is there exchange of goods between localities?
4. How does exchange of goods between localities contribute to the growth of cities?
5. Why do we have commerce between different countries?

SECTION 2. COMPARATIVE COSTS

By export we mean sending goods away from a country; by import we mean bringing goods into a country. Why does a country export some goods and import others? Why does it not produce everything it uses? The people of a country export what they want less and import what they want more, because by this exchange they can get more of satisfactions. A country tends to export those things in which it has a comparative advantage; it tends to import those things in which it has a comparative disadvantage.

A country may have an advantage in producing a commodity as compared with other countries, first, because of climatic conditions. The South enjoys such an advantage in raising cotton. The combination of conditions necessary to successful cotton culture is not found to be so favorable in any other country as in the South. The same is true of Brazil in producing coffee. It pays each of these peoples to devote themselves largely to the crops in which they have a decided advantage, for they can exchange their cotton or



LOADING COTTON FOR EXPORTATION

Immense quantities of cotton are shipped from the South to countries where cotton does not grow

coffee for more of other commodities than they could get if they gave themselves to the production of those other commodities. Other explanations of the relative advantage of one country over another in producing an article are possession of natural resources necessary to the given production — resources consisting of chemicals in the soil ; of mineral deposits, such as coal, oil, or gas, for fuel, ores for metals ; of waterfalls for power, and of lumber ; or of any gift of nature valuable in bringing goods into existence. Again, the characteristics of the people have much to do in determining the advantages of one country over others in production of particular goods. Density of population combined with a low standard of living may give a country the advantage where labor is the most important factor in the process. The ingenuity and industry of a people may give them an advantage ; so may their technical skill. It is for this reason that industrial nations are looking more and more to the training of the children. Germany has worked out an elaborate system of vocational training, especially in the continuation schools. The increase in the technical skill of the German laborer as the result of such training is a partial explanation of the economic success of Germany in competition with other nations.

It is possible for a country to have a relative advantage in producing two or more commodities, and yet its advantage in one may be so much greater than in the other that it will specialize in the one commodity in which it has the greatest advantage and leave other countries to specialize in the other commodities in which it has the lesser advantages, even though they are relatively at a disadvantage. For example, the United States can produce hemp more cheaply than Italy can, yet we import hemp from Italy because we have less advantage in producing hemp than we have in producing some other things, such as farm machinery.

There is nothing remarkable in a country's turning its labor to the most advantageous employment. An individual does the same thing. A lawyer may be an excellent stenographer, yet if he has any practice he employs someone else to do his stenographic work. In fact, he may be a better stenographer than he is a lawyer, but because the public will pay more for the indifferent advice of a mediocre attorney than it will for the services of an expert stenographer, he leaves the typewriting to a clerk and devotes his time to giving counsel and trying cases.

QUESTIONS

1. Define export ; import.
2. State the law of comparative costs.
3. Show how it may be to the advantage of a country to import a commodity which it could produce for less than the cost of purchasing it abroad.

SECTION 3. AIDS TO FOREIGN EXCHANGE

As we saw when we were studying money, goods are paid for by other goods. Money is used merely as a convenient medium to make easier the exchange of goods for goods. In foreign trade the goods brought into a country are paid for by the goods sent out of the country ; that is to say, the value of the imports will in the long run equal the value of the exports. Like all other trade in modern times, foreign trade is carried on in terms of money. When the exchange of goods is between two citizens of the same country, they settle with each other in the money of their country : if Americans, they price their goods to each other in terms of dollars and cents ; if Englishmen, in terms of pounds and shillings ; if Frenchmen, in terms of francs. But in international trade the parties to a transaction belong to different countries : if an American sells goods to an Englishman for the Englishman's money,

he gets pounds; if the Englishman sells to an American for our money, he gets dollars instead of pounds. The pounds must be converted into dollars or the dollars must be converted into pounds, as the case may be. Changing the money of one country into the money of another country is done by means of foreign bills of exchange.

A bill of exchange may be defined as an order made in writing by a person, addressing another, and directing him to make a payment to a third person. There are then three parties to a bill of exchange: the one who drew the bill, or the maker; the one addressed, sometimes called the acceptor or the drawee; and the one to whom payment is to be made, called the payee. A bill of exchange is brought into existence through the sale of goods. For example, a Texas cotton broker sells a hundred bales of cotton to a dealer in Liverpool for an average of \$100 per bale. The Texan, by reason of this transaction, has a claim upon the Englishman for \$10,000. The Englishman buying the cotton may want to sell it before paying for it. It will require some time to ship the cotton from Galveston to Liverpool; then the Englishman may want some time after the arrival of the cotton in which to dispose of it. He has therefore arranged for the Texan to draw on him or on his bank for \$10,000 to be paid sixty days from the date of the bill; that is, sixty days from the date the cotton was sold by cablegram. If this were the only arrangement made, the Texan would have to wait sixty days, until the Englishman could receive and dispose of the cotton and pay the bill drawn against him. Then the money would have to be shipped across the sea to Texas. But let us further suppose that on the day the cotton is sold another Texan buys \$10,000 worth of cotton goods from a jobber in Liverpool. By this transaction the English jobber acquires a claim against a Texas merchant for \$10,000. The merchant may want to receive the goods and have a chance to sell them

before paying for them. Accordingly he will arrange with the Liverpool jobber to draw upon him or upon his bank for \$10,000 to be paid in sixty days. If there were no other way, the merchant would wait for the goods, sell them, and ship \$10,000 to the jobber in Liverpool. Here we have a Texas cotton broker with a claim for \$10,000 against a dealer in Liverpool, and a Texas merchant with a debt of \$10,000 to a jobber in Liverpool. If this Texas merchant can get from the cotton broker the bill calling upon the Liverpool dealer for \$10,000, he can send it to the Liverpool jobber in payment for his goods and let the jobber collect in Liverpool from the dealer who bought the cotton. Consequently the Texas merchant goes to his local banker and gives his note for \$10,000. With this money borrowed from the bank he buys the bill from the cotton broker, so that the cotton broker has his money without having to wait for the cotton to go across the ocean and the money to come back. The merchant then sends the bill to the jobber in Liverpool; the jobber presents it to the dealer upon whom it is drawn; and the dealer (or his bank for him) writes across the bill the word "Accepted" and signs his name. That means that the dealer agrees to pay the bill when due. Because it is thus accepted, banks will buy it; consequently the jobber is able at once to sell it to a bank for cash and in this way get payment for the goods he sold the Texas merchant. When the bill is due, it is presented by the bank that bought it; and the dealer, having received and sold the cotton, pays it; and it disappears. By use of this bill the cotton broker in Texas gets money at once for cotton he has sold on sixty days' time; the Texas merchant gets means of paying his obligation in Liverpool without shipping the money; the Liverpool jobber gets his money without waiting; and the cotton dealer in Liverpool pays for the cotton he imported from Texas without having to ship money across the ocean. That is, the merchant pays the

broker, and the jobber pays the dealer. In other words, the cotton from Texas is paid for by cotton goods from Liverpool, the value of the cotton and of the merchandise being reduced to terms of money, and a bill of exchange being passed from one interested party to another as evidence of claim to this value.

Many such transactions are made each day between the business men of our own country and those of other countries. These transactions are managed by means of bills of exchange, exactly like the acceptances described in Section 8 of Chapter IX, except that foreign exchange is complicated by the different systems of money used in the different countries. There are bankers and bill brokers who buy and sell bills of exchange. Exporters have bills to sell; importers want to buy bills. When the demand for bills of exchange exactly balances the supply of such bills we say that exchange is at par. "Par of exchange" means an equipoise of the exchange. When exchange is at par a bill of exchange sells for the exact amount of money for which it calls. A bill calling for a pound sterling in London would sell for \$4.86, for it happens that there are exactly the same number of grains of gold in four and eighty-six hundredths American dollars as in one English pound sterling. If the bills on London offered by exporters happen to call for the same amount needed by importers seeking bills, then exchange on London would be \$4.86, or par. If more bills were offered than the importers wanted, then (the supply of such bills exceeding the demand) they would sell for less than \$4.86. How much less would the exporters be willing to take? It would cost about three cents to send one pound, or four dollars and eighty-six cents, from London to New York. This would include waste of gold through handling, interest on it while in transit, insurance against its loss, and the charges for carrying it. If the exporter could get his money brought to him for a charge not

exceeding three cents on the pound sterling, it stands to reason, he would not sell his bill for less than par less three cents; that is, about \$4.83. On the other hand, if importers, in order to make their settlements abroad, desired to buy more bills than exporters were offering, foreign bills would sell above par because the demand would be greater than the supply.

How much above par of exchange would the importers be willing to pay? Not more than it would cost them to export the gold in settlement of their obligations. This could be done, as we have seen, between New York and London for about three cents per pound sterling. Therefore the bill on London would not bring more than about \$4.89, for it would be less expensive to send the gold, if bills cost more. We speak of \$4.89 as being the gold-exporting point, of \$4.83 as being the gold-importing point, and of the two figures as the "gold points."

What has been said about the import or export of specie after passing the gold points holds true only if both countries are on a specie basis. Sterling exchange in this country has been below the specie-importing point much of the time since August, 1914. Upon the outbreak of the World War, England suspended specie payment. What one obtained who then bought sterling exchange was a claim for pounds sterling which would be paid in paper money or other claims for payment in gold. But this paper calling for gold could not be redeemed in gold at the banks, consequently exchange fluctuated violently. This was not only true of England but of the other European countries as well. In February, 1920, sterling exchange sold in New York for \$3.19. Exchange on Paris sold for 14.5 francs per dollar, whereas 5.19 is par.

QUESTIONS

1. What use is made of money in foreign exchange?
2. Define a bill of exchange. Draw up a form for one.

3. Show how a bill of exchange is brought into existence. Show what becomes of it.

4. "Exporters have bills to sell; importers want to buy bills." Explain.

5. State the normal rate of exchange between the United States and England. What is meant by the gold points? Why were rates of exchange so far from par during 1914-1921?

SECTION 4. HOW FOREIGN EXCHANGE IS MADE

Foreign exchange has become of greater importance to the average American citizen since 1914. Before that date the interest in foreign exchange was largely confined to bankers, international traders, and writers on financial subjects. The war brought so revolutionary a dislocation of the exchanges that the general public has become interested. Moreover, some two million Americans went overseas during the war, and came in actual contact with the difficulties of converting the currency of one country into that of another. It is therefore important to make an explanation of the mechanism of foreign exchange.

The expression "foreign exchange" refers to the exchange of money in one country for money in another. In most cases the money exchanged is in the form of bank deposits. A merchant in New York who has agreed to settle in London for a bill of goods purchased in England makes the payment in the form of a London bank deposit. He gets this bank deposit in London in exchange for a portion of his bank deposit in New York. He goes to a foreign-exchange banker who carries a deposit in a London bank, and gives his own check on his own bank in exchange for the check of the foreign-exchange bank drawn against its deposit in the London bank.

In normal times and between two countries having gold as the standard money, foreign exchange consists in the exchange of gold in one country for gold in another. Instead of shipping

gold to pay a debt in England, an American can purchase a draft on a London bank payable in gold and send the draft to his creditor.

Settlements between citizens of different countries are usually effected by means of bank deposits. A draft is drawn upon a bank, or a cablegram is sent directing the bank to transfer a deposit from the credit of the payer to the credit of the payee. As a rule the banks engaging in foreign exchange are the larger ones located in the great financial centers. An American wishing to make a payment abroad has contracted to do so in gold. He has gold on deposit with his bank. If his bank does not have a foreign-exchange department, he can go to one that has and give to it a check for his gold. He can then either ask the foreign-exchange department to prepare the gold for shipment and send it to his foreign creditor, or he can get the bank's check calling upon a foreign bank to pay gold to his order. The foreign-exchange department of the American bank can draw such draft because it will have a deposit with the foreign bank against which it may draw. Likewise, there will be someone abroad wishing to make a settlement in America. He will purchase the right to demand gold of a New York bank. These two transactions will offset each other and make it unnecessary to move any gold at all or, at most, but a small amount.

Let us take the case of a New York merchant who has purchased goods from a Manchester manufacturer and has agreed to pay one thousand pounds. There are 113.001 grains of pure gold in a pound sterling. The American has in this case agreed to pay 113,001 grains of gold. What he must do is to obtain the right to demand of an English bank 113,001 grains of gold and transfer his claim to the Manchester manufacturer. It is troublesome and expensive to ship gold. Besides, if all merchants made foreign settlements by shipping bullion, foreign trade would be greatly curtailed for want of

enough gold. The New York merchant, being required to deliver 113,001 grains of gold to the manufacturer in Manchester, could approach a foreign-exchange banker in his city and inquire the terms on which he could get a claim to the gold in England. We will suppose that the New York banker would advise him that exchange was slightly above par and that he could effect the exchange of gold in England for the merchant's gold in New York at the rate of \$4.87 per pound: that is, the New York bank would sell him the right to demand of an English bank 113,001 grains of gold in exchange for 113,0814 grains (23.22×4.87).¹ The New York merchant would get title to one thousand pounds, or 113,001 grains of gold, in an English bank in exchange for 113,081.4 grains, that is, for \$4870. In this case the merchant in New York had to pay to the New York banker 80.4 grains of gold more than he received. But what he received was already in an English bank, ready to be delivered to the Manchester manufacturer. It would have cost about three hundred and twenty grains to have shipped the gold. In this case the merchant saved about two hundred and forty grains by buying a bill of exchange instead of shipping bullion.

Foreign-exchange transactions are divided into several classes. The classification is based upon the length of time between the origin of a bill and its payment. Some of the more common classes are as follows:

1. Spot cable exchange, sometimes called "prompt cables" or "ready cables." This class owes its name to the fact that the order for the delivery of gold is transmitted by cable. The transmission of means of payment is immediate or at least no longer than the time required to dispatch a cablegram.

2. Future cable exchange, known by the names of "future contracts," "future exchange," or simply "futures." These

¹ A dollar is 23.22 grains of gold; \$4.87 equals 113.0814 grains.

names refer to engagements entered into in the present for the exchange of gold at some specified future date.

3. Demand exchange, also called "sight exchange." In this case the order for the delivery of gold is transmitted by mail. It consists in the exchange of "spot gold" (in the country in which the bill is drawn) for "future gold" (in the country to which the bill is to be sent for collection). It is to be paid as soon as it arrives by mail. This is the most important class because it is the most commonly used.

4. Long exchange, also known as "time exchange." It differs from the demand remittance only in that the time between the origin of the bill and its payment is longer. It usually calls for payment in the country in which the drawee resides thirty, sixty, or ninety days, or four, five, or even six months in excess of the time required to send it by mail. Long exchange has its origin for most part in the export of merchandise. It is to accommodate the foreign purchaser of exported goods and to enable him to sell such goods in his own country before he pays for them.

The rates of foreign exchange are not determined by the transactions between two countries alone. The rates of foreign exchange between the United States and England are not determined by the dealings of Americans with Englishmen merely. The United States carries on trade with many other countries. The rates of foreign exchange between the United States and any other country depend upon the dealings between Americans and the people of all other countries. This is often illustrated by the triangular trade between the United States, England, and Brazil. The United States sells cotton, wheat, and other raw materials to England and imports manufactured products. The value of these exports from the United States to England is much greater than the value of the imports from that country. We might therefore expect gold to be shipped in large quantities from England

to the United States. In such case bills drawn in England on the United States would sell at a premium, that is, above par; and bills drawn in the United States on England would sell at a discount, that is, below par. But England exports a greater value of manufactured products to Brazil than the imports from that country. The Brazilians need means of payment in England. They obtain these by exporting coffee to the United States of much greater value than the value of their imports from the United States. The Americans, by reason of an excess of exports to England over imports from England, have bills against London. These bills they transfer to the Brazilians for their coffee; the Brazilians, in turn, use them to pay their obligations to Englishmen by reason of having bought more goods from the English than they sold to them.

It is immaterial on what country bills are drawn in order to settle cross-payments. For years most such bills were drawn on London. That was because of England's vast foreign trade reaching to every portion of the earth. Peoples in different lands became acquainted with the pound sterling and were willing to take sterling bills. During the World War gold could not move in and out of England as before. A sterling bill no longer represented a definite quantity of gold. Bills drawn on New York came to be much in demand. As time passes changes will bring varying practice in drawing bills for cross-settlements. But it makes no difference whether such bills be drawn against London, New York, Yokohama, Paris, or some other center. It is of little real importance whether such bills call for pounds sterling, francs, dollars, or yen. A particular country may be interested in having bills drawn against its banks pass as a sort of international currency. The reason for such interest is that such a state of affairs is evidence of sound credit, good business judgment, and material prosperity.

QUESTIONS

1. How does foreign exchange differ from domestic exchange?
2. What is meant by "spot cable exchange"; "future exchange"; "sight exchange"; "time exchange"; "triangular exchange"?
3. What would be the significance of New York's taking the place of London as the chief financial center of the world?
4. Illustrate the use of a bill of exchange in the purchase of five thousand pounds of cotton goods from Jones and Company of Manchester, England, by Smith and Company of New York City.
5. A manufacturer of motor trucks in Detroit, Michigan, sells a large shipment in India. How might payment be effected through London?

SECTION 5. THE BALANCE OF TRADE

In the foregoing section we have considered the mechanism of foreign exchange. Whatever the details of such a mechanism may be, the total value of the imports of a country are balanced against the total value of its exports. If exports exceed imports, the difference may be settled by the importation of gold; if imports exceed exports, the balance may be struck by exporting gold. But the flow of specie into a country or out from a country tends to set in motion forces which sooner or later check such a flow. When specie comes into a country prices tend to rise. This rise in prices makes the country a better place in which to sell. Imports are attracted by the rising prices. And this increase in goods imported takes the place of the former importation of gold. On the other hand, when gold leaves a country prices tend to fall. Such a fall in prices makes the country a good one in which to buy. Exports increase with the fall in prices. The goods exported take the place of the former exportation of gold.

Moreover, there are other checks upon the flow of specie from one country to another. When gold tends to leave a

country the rate of discount may be increased. Gold is lent for a price. When the price (commonly called interest) is high we say the rate of discount is high. Now, if there be more imports than exports, and gold tends to flow out to foreigners in settlement of the difference, the rate of discount may be raised to a point where those foreigners having a right to the gold are willing to leave it where it is for the sake of the higher price offered for its use than they could get in the countries in which they live.

Again, securities (bonds or shares of stock) may be exported or imported instead of gold; for example, if England buys more from the United States than usual, and much more than the United States buys from England, instead of gold the English may arrange to send securities which Americans are willing to receive. During the war America exchanged several billion dollars' worth of goods for such securities. That is the way one country may buy from another on long credit. The bonds given in exchange for the goods bear interest and may run for a number of years.

QUESTIONS

1. What do you understand by "balance of trade"?
2. How should you expect the rate of sterling exchange in New York to be affected by (1) a financial panic in New York City? (2) a failure of the American wheat crop? (3) a great increase in American gold output? (4) a general European war?

SECTION 6. EXCHANGE BETWEEN COUNTRIES NOT ON A GOLD BASIS

Thus far we have been considering exchange between countries on a gold basis. But not all countries are on a gold basis. Some have never adopted the gold standard, while others are compelled by circumstances to suspend specie payments. A country like Mexico or India may cling to silver as the standard money. An American exporting goods to such a

country would receive a bill of exchange calling for silver. Converting such a bill into terms of gold in the money of the United States would not only involve the considerations set out above, but, in addition, there would be as a disturbing factor the gold price of silver.

Of much more importance to Americans since 1914 are the effects produced by inconvertible paper money. During the Civil War and after, until 1879, the paper money of the United States was not convertible into gold. During those years a bill on London called for gold, which would be delivered. At that time exchange on London sold in New York at a price which was determined largely by the price of gold in our paper money.

Soon after the outbreak of the World War, the money of Great Britain, France, Belgium, Germany, Austria, and Russia became irredeemable paper. The overissue of paper has spread to almost every European country. The table on page 138 shows to what an extent there has been a depreciation of this paper money.

An American exporter to a country like Germany receives a bill payable in a foreign city, say Berlin. In such a case the bill would call for marks. Upon presenting it for collection the American would receive paper marks and not gold. Since he could not get gold, he would have to exchange the paper marks for German goods and find a market for them in the United States or elsewhere. Much time perhaps would elapse between the sale of American goods to Germany and the collection for them through this roundabout process of exchanging a bill of exchange for paper marks, the purchase of German goods with paper marks, and the sale of such goods.

In determining the rate of exchange several difficult estimates would have to be made: (1) the price of gold in German marks; (2) the prices in Germany of goods available for export; (3) the prices at which such goods could be sold in the

United States or elsewhere; (4) the commissions of a series of middlemen; (5) the uncertain length of time required to complete the transactions; (6) the fluctuation in prices during such a period of time. All this makes a dislocation of the exchanges very difficult and trying. Risks are so great that speculation is inevitable.

QUESTIONS

1. Find the current quotations of exchange on London, Berlin, Paris, Vienna. How do these quotations compare with those given in the table on page 138? Can you explain the differences?

2. Let us suppose that one dollar in gold will buy ten thousand German marks; that an American firm wants to sell one hundred five-hundred-pound bales of cotton in Germany. Suppose that he can get the equivalent of thirty cents a pound in German marks for the cotton. How could the American cotton broker get American money by selling his cotton in Germany? How much would he get in the case as stated?

SECTION 7. ITEMS WHICH ENTER INTO THE TRADE BALANCE

When imports exceed exports we say that the balance of trade is unfavorable because gold will tend to flow out of the country in settlement of the balance; when exports exceed imports we say that the balance of trade is favorable because gold tends to flow into the country in settlement of the balance. This is because of the importance that has been and still is attached to specie as a form of wealth.

In the long run the value of wealth imported equals the value of wealth exported. If merchandise be imported of greater value than the merchandise exported, then the difference will be exported in values of something other than merchandise. It may be in gold. But the chances are that only a part of the difference will be represented by exported gold. A part, and usually the greater part, will be values other than those represented by merchandise or gold.

Into the balance of foreign payments enter several items. The most important of these are (1) merchandise, (2) gold, (3) securities (stocks and bonds), (4) expenses of travelers abroad, (5) living-expenses of nonresident citizens, (6) remittances sent to all countries by immigrants, (7) charges for carrying ocean freight.

The history of the foreign trade of the United States shows how each of these items may affect the balance of trade. Up to about 1873 imports into the United States from year to year exceeded exports. The balance of trade was said to be against us. During the years preceding 1873 the people of the United States were borrowing great sums from foreign lenders. They borrowed for such purposes as to dig canals, to build factories, to construct railroads. The stocks and bonds of American corporations were exported, and in exchange for them Americans received the goods they needed for developing their transportation system and their industry and commerce. The English, the French, and other capitalists had money to lend. Americans got this money by borrowing it and giving their bonds or by selling shares of stock. But the money of European capitalists was not exported to the United States. Americans needed steel and other manufactured products. The money borrowed was spent in Europe for the goods needed, and these goods were brought to the United States. Such goods were imports. The loans were negotiated for long periods. It was a long time before Americans began to export goods to pay off these loans and to buy back the shares of stock owned by foreigners. Moreover, until the Civil War, American ships carried goods for foreign merchants. The freight charges gave Americans claims against Europeans for payment. These claims were settled by sending goods from Europe to America.

By 1873 Americans had borrowed so much abroad that the interest charges and payments on the principal sum more

than offset fresh borrowings, consequently Americans began to send more goods to Europe in payment of interest and principle on their loans than they were importing on account of new loans. This was due in part to several facts. The Civil War had driven most American shipping from the seas. Besides, England was leading in the manufacturing and operation of the steamship. Foreign steamships had the advantage over American sailing-vessels or the more expensively constructed American steamships. Americans came to pay more for freight to foreign ships than American ships collected from foreign patrons. Freight charges for ocean shipping gave rise to claims against Americans for payment in favor of Europeans.

Then, too, after 1873 Americans began to travel abroad in increasing numbers. By 1910 their expenditures had come to amount to hundreds of millions of dollars annually. In addition, many wealthy Americans went abroad to live, and daughters of rich Americans married foreigners; all these caused many millions of dollars to be exported each year for their benefit.

After 1873, millions of immigrants came to America. Among them were birds of passage who worked awhile in America and returned to their own country with their earnings. Many immigrants send savings to relatives in the homeland. This item has reached great proportions. It was estimated after 1890 to be as high as \$200,000 for some years. All these transactions led to accumulation of claims abroad against America. As a consequence each year since 1873 American exports have ordinarily been far in excess of imports; that is, the balance of trade has been what is called favorable.

The World War led to a demand in Europe for enormous quantities of American goods. Some \$6,000,000,000 of American stocks and bonds owned abroad were returned to

Americans in this country in payment for war supplies. In addition, Europeans and their governments sent billions of dollars of bonds executed by themselves and promising to repay us in the future for goods purchased during the war. Our exports were therefore greatly in excess of imports during the war and for two years after the Armistice.

If Europe continues for a few years to borrow more than she repays, if Americans spend abroad, and if immigrants send savings back to their native lands, exports from the United States will continue to exceed imports. However, there will no doubt come a time when Europeans will repay their indebtedness to America, when immigration to this country will perhaps be less, and when travel of foreigners in America will more nearly equal the travel of Americans abroad. Such developments will cause imports to this country to exceed exports, and again there will be talk of an "unfavorable" balance of trade.

The reader must have realized that the phrases "favorable" balance of trade and "unfavorable" balance of trade are due to a misunderstanding of the significance of foreign trade. America was fortunate to be able to borrow when she needed capital. Such borrowing expressed itself in an excess of imports over exports. America will as a creditor nation collect the interest on and principal of loans abroad. This, too, will tend to swell imports above exports. The interim between these periods we see characterized by an excess of exports over imports due in large measure to paying off foreign indebtedness and in putting foreigners in debt to Americans.

Goods flow from one country to another to the mutual advantage of the citizens of the respective countries. A people with a relative advantage in producing a commodity gains through exchanging it for other goods. Climatic conditions, mineral deposits, power sites, qualities of soil, effectiveness of labor, are among the causes of relative advantages of a

locality in producing some good or goods. With improvements in transportation, in communication, in the mechanism of exchange, the division of labor and specialization may be carried farther and farther. The easy exchange of the products of specialists and of specializing groups means more abundant satisfaction, greater material prosperity in every country, and should contribute to raising the standard of living for all men the world around.

QUESTIONS

1. Mention the principal items which enter into the balance of trade.
2. What is meant by "favorable" balance of trade and "unfavorable" balance of trade?
3. Is an unfavorable balance of trade a disadvantage?

SECTION 8. THE PROTECTIVE TARIFF

When goods are exported or imported a tax may be levied upon them and collected before they are sent away or admitted. Such a tax is known as a customs duty or a tariff. If the tax be high, we say the tariff is high. In the United States the Constitution provides that no tax shall be levied upon exports. A tariff upon imports may be levied (1) in order to produce revenue for the government and (2) to discourage imports. The purpose of discouraging imports is to protect domestic producers from foreign competition.

Since it is advantageous for a country to specialize in those things in which it has the relative advantage, since such specialization makes necessary the exchange of goods between countries, why should tariffs be imposed arbitrarily to interfere with the flow of goods?

As already indicated a tariff on imports in the interest of domestic producers is called a protective tariff. One sound argument for a protective tariff is the protection of an industry

during the years it is being established. Such a tariff was urged by Alexander Hamilton in his famous report on manufacturing. Hamilton saw America a rural and agricultural country. He wanted a diversification of productive activity, and believed that protection would be necessary in order to encourage manufacturing. Frederick List, an able champion of a protective tariff, argued that the duties levied should not be higher than 25 per cent, because if a country were at too great a disadvantage, it should not undertake an industry. He also contended that twenty-five or thirty years is long enough for such protection to be extended, for if a business cannot become established within that time, the country is really at a disadvantage in that particular type of production.

The justification of the protection of infant industries is that while a country may have an advantage over other countries in turning out some manufactured product, yet lack of experience or ignorance may make it very difficult to get started. Until production within the country is increased, a tariff levied upon imports increases by the amount of the tariff the price which the consumer must pay over the cost to the foreign producer. This enables the young industry to get through the experimental stage and develop to a point where it can utilize the advantages of location, labor, or what not which will enable it to stand against any competitors.

The tendency is for industries to continue to demand protection after they have become established. Our own history furnishes ample proof of this tendency. We may say that until 1860 manufacturing in the United States was in process of development. There were many experiments. Factory sites were being tested; lines of endeavor were being tried out. Yet the tariff was no higher during most of this time than List would have claimed necessary. From 1845 until 1860, when manufacturing was being extended pretty

well over the present industrial area, the tariff was so low as to satisfy most opponents of protection. Since 1860 we have had the highest tariffs in our history. Some of these were levied between 1890 and 1910. The Underwood tariff of 1913 greatly reduced duties, but still left them high. The Fordney tariff of 1922 increased duties greatly.

Many Americans have come to believe that our prosperity depends upon a protective tariff. That is a rather silly notion. America would have been a great industrial and manufacturing country in any event, for the United States had the necessary mineral deposits, the power sites, and the ingenious and energetic population which make manufacturing inevitable.

Again, a protective tariff may be useful in obtaining political ends: it may contribute to the development of a robust nationalism; it may enable diplomatic representatives of a government to bargain well with representatives of other countries.

However, a number of fallacious arguments are often made in support of a protective tariff. The most common of these are the "full dinner pail" and the home-market contentions. Many advocates of the protective tariff have taught the wage-earner that such a tariff protects the laborer against the competition of poorer-paid workers in other countries. If lower wages always gave the foreigner the advantage, how could there be any exports at all? Yet we do export commodities made by high-priced labor, and we sell them in other countries in competition with commodities made by low-priced labor. The real secret of relatively high wages in America is the effectiveness of American laborers. They work with such intelligence and speed that the products are turned out in such quantity and of such quality as to make possible much lower selling prices than could be quoted on goods manufactured in other countries where wages are lower but laborers

less effective. The effectiveness of laborers is often due to competent management.

If a country protects some industry which otherwise could not exist, the payment of any wages in that industry will depend upon a continuation of protection; but the fact that an industry could never stand alone without protection is evidence that the country is at such a disadvantage in that particular business that it should be abandoned. If it were abandoned, the laborers would find employment in those industries which are profitable without the protection of a tariff; that is, the labor would be more wisely directed, and the entire output of the country would be greater than where labor was working in a handicapped industry.

Protectionists make much of the home market: keep out foreign goods, they say, and we will build up factories at home; these factories will purchase the raw materials of the country, and their employees will consume the products of native enterprise. While protection may develop industries, it does not develop an additional market. It merely substitutes a domestic for a foreign market. If England sends fine cotton fabrics to America to exchange them for our wheat and raw cotton, we may have a foreign market for as much wheat and cotton as we care to take fine cotton fabrics. Suppose that we levied a tariff making the duty on imported cotton goods so high as to increase greatly the price which the American consumer must pay for them. Under such circumstances Americans might go into the business of manufacturing fine cotton fabrics. They would do so because the English, having the handicap of an import tax, would not be dangerous competitors. Americans would make the fabrics at a greater cost than Englishmen, but at a less cost than the cost of English manufacture, plus the cost of ocean freight, plus the customs duty. They could have made them before at this cost; but the English, having the advantage in this business, could

send in their goods and undersell the Americans unless the Americans were protected by the tariff. But England had been sending to the United States cotton fabrics to pay for American wheat and cotton. With the curtailing of the American market for English fabrics, England would send to the United States a smaller quantity of commodities to pay for American wheat and cotton: that is to say, the market in England for American wheat and cotton would be curtailed and a new home market substituted therefor; and in the new home market the American farmer would get less fine cloth for his cotton and wheat than he had been able to get in England. Whether this condition became permanent or whether domestic competition ultimately reduced the price of these fabrics would depend on whether the cost of production in the United States could be reduced. If the cost of production remained as high as when the tariff was first imposed, wherein would be the advantage of the home market?

Tariffs are apt to be influenced by those with selfish interests to serve. Much irritation and waste result from protective tariffs. Countries indulge in "tariff wars," peoples become estranged, and actual warfare is provoked by tariff controversies. If tariffs are retained, the making of them should be given over to experts who should be instructed merely to obtain revenue and to encourage such new industries as could ultimately stand alone.

QUESTIONS

1. Explain "protective tariff," "tariff for revenue," "free trade."
2. State the arguments for and against a protective tariff.

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CHAPTER XII

RENT

SECTION I. THE PROBLEM OF THE DISTRIBUTION OF WEALTH

Up to this point we have been considering the production of goods. We have seen that production is carried on in order to satisfy human wants. We took up the factors of production — land, labor, and capital — and looked into the sources of supply and some of the characteristics of each. We then studied the organization of these factors of production. We reviewed the organization used during the Middle Ages and during the first centuries of the modern era that we might see how our present organization has grown out of past experience. We then considered briefly our current organization of productive process, with its division of labor, specialization, exchange of goods, wide market, freedom of enterprise, and with its highly developed corporate form. We then turned to a consideration of some of the theories and devices men have developed in order to make easy the exchange of goods. As highly important among these we studied value, money and credit, banking, price, and foreign exchange.

Having considered the production of goods we turn now to their distribution. After goods are produced how are they apportioned? After goods are brought into existence what determines how they shall be divided among men? We may speak of the sum total of goods produced as the social product. What determines how much of the social product a particular individual shall receive? Why do some receive large shares, while others get very small portions? Why is it that the social product is distributed as it is?

During the following chapters we shall undertake to explain how goods are distributed. This portion of our study is known as the distribution of wealth.

In our analysis of production we studied land, labor, capital, and organization. Goods are the joint produce of land, labor, capital, and organization. Those who furnish the land, the labor, the capital, and the organization will claim the produce. One man, like the farmer, may own the land, perform the labor himself, supply his own capital, and do the organizing. In such a case he would get the products. In another case land might be leased from its owners, upon which shareholders would build a factory in which wage-earners would toil, the whole establishment being organized and directed by some man or small group of men. The product might be cloth. How much of this cloth would go to the owner of the land used by the factory? How much to the shareholders who made possible the erection of the plant? How much to the wage-earners within the factory? How much to the management for work of organization and direction? The cloth itself would not be distributed among these claimants, but would be sold in the market at a price to those wanting it. The money received from the sale of the cloth would be deposited in a bank, and the management would draw it out in payment to landlord, laborers, shareholders, bondholders, and managers. The payment to the landowner for the use of his land we call rent; the payment to laborers for their services we call wages; the payment to shareholders and bondholders for the use of their capital we call interest; the payment to managers for their work of organization and direction we call wages of management; if anything be left over it is called profit and is claimed by the owners of the business, that is, the shareholders.

Our method of distributing wealth assumes among other things the institution of private property. It further assumes

freedom to enter into or to refrain from entering into a contract; it assumes a government capable and ready to enforce the terms of a contract; it assumes competition.

The amount of the social product which any claimant receives is usually fixed by a bargain, and depends upon the relative strength of the bargainers; the amount of rent received by a landlord is fixed by a bargain, and depends upon the bargaining strength of the parties to the contract. If the landlord be a weak bargainer, the rent will be low; if he have great strength as a bargainer, the rent will be high. Likewise the wages of the laborer are fixed through bargaining. If the employer be stronger than the laborer as a bargainer, wages as a rule will be lower than if the laborer were at an advantage and the employer at a disadvantage in making the wage contract. Interest and wages of management, too, are fixed through the driving of bargains. Whether or not there be profits left depends in large measure upon the success of the owners or their representatives in keeping expenses down through bargains advantageous to themselves for the factors of production.

There are economic laws and tendencies which influence these bargains. The theory of the distribution of wealth is a statement of such laws and tendencies. We shall now turn to the examination of the laws and tendencies which affect the bargains that determine the distribution of the social product. We shall study these under the headings rent, interest, wages, and profits.

QUESTIONS

1. What has been accomplished up to this point in our course?
2. Define the word "distribution." Define wealth. What is meant by the distribution of wealth?
3. What is meant by the social product?
4. Who are the claimants to the social product?

5. May one person claim more than what is paid for the use of one factor of production? Why so?

6. What is distributed among those who furnish the various factors of production and thereby turn out a joint product?

7. Make a list of assumptions necessary to an explanation of the present distribution of wealth. Are assumptions ever made in studying problems in fields of knowledge other than economics?

8. State some general laws or principles which affect the behavior of animals; of inanimate objects.

SECTION 2. RENT DEFINED

It is important that the meaning of the term "rent" be first understood as it is used by economists. Fetter¹ discusses the etymology of the word;

The original meaning of rent was any regular income or revenue arising from wealth. The word comes from the low Latin *renta*, in turn from *redditus*, that which is given or returned. The French *rendre* (English render) to give or return that which belongs to one, is used very early. Chaucer used "rente" as an income. The popular meaning of rent is that amount paid for the use of material things, as rent for houses, stores, furniture, books, lockers, etc. Much of this, however, is a return for capital, and payment for the use of capital is called interest.

Ricardo² was among the first to define rent in its strict economic sense. He says: "Rent is that portion of the produce of the earth which is paid to the landlord for the use of the original and indestructible powers of the soil." In criticism of this definition it has been pointed out that rent is only paid for powers exceeding those of the land just worth cultivating and that the powers of the soil are not indestructible. Mill³ defines rent as the consideration paid for the use of land, adding that the landlord receives the rent. F. A. Walker⁴ follows Ricardo pretty closely in his definition: "Rent is the term

¹ Principles of Economics, p. 53.

² Political Economy, p. 44.

³ Principles of Economics, Book II, chap. xvi. ⁴ Political Economy, p. 193.

applied to the remuneration received by the landowning class for the use of the native and indestructible powers of the soil, or for the use of natural agents." Senior¹ says: "Rent is an advantage derived from the use of a natural agent not universally accessible; that it is the reward spontaneously offered by nature or accident." Fetter² defines it as the "value of the usufruct as distinguished from the value of the use-bearer or the thing itself," a definition that is more sonorous than enlightening. Ely³ speaks of rent as the price paid for the services of land. While Taussig⁴ defines rent as "the additional amount secured by those producers who have advantages over the marginal producer." But the most satisfactory definition of rent and the one that will be adhered to in this treatise is given by Professor J. Lawrence Laughlin⁵:

In the economic sense rent is the payment which an owner receives for the use of natural agents, and these "natural agents" include land, whether arable or timberland, mineral deposits, water power, or land peculiarly suited for building purposes. Rent is a payment not for the use of another's capital, but for the use of natural agents belonging to another.

QUESTIONS

1. Point out differences between the above definitions.
2. What do these definitions have in common?

SECTION 3. THE CAUSES OF RENT

Rent is paid for the use of natural agents because they are not unlimited in quantity. The air for practical purposes is unlimited in supply. Nothing is paid for its use, though it is essential to life itself. We breathe it; it is of great service in driving ships across the seas; it carries the moisture hundreds and thousands of miles to water the face of the earth;

¹ Political Economy, p. 128.

² Principles of Political Economy, p. 55.

³ Economics, p. 348.

⁴ Principles of Economics, Vol. II, p. 56.

⁵ Elements of Political Economy, p. 264.

it drives ten thousand windmills on the arid prairies, it calls men to rise with the birds and make common commerce of the skies, — yet never a penny is charged for air. Suppose that land were unlimited in supply or that its productivity were limitless, could anyone be persuaded to pay anything for its use? If land were so fertile that any portion of it would readily yield all the cereals and vegetables and fruits and fabrics and flowers that any number of human beings could possibly consume, there could be no charge for the use of land; for if a man fenced off a field and sought to charge his neighbors for the privilege of tilling it, rather than pay him they would cultivate their own yards, or any other soil that happened to be convenient.

In new countries no rent is paid. When the first colonists settled along the Atlantic coast they had an entire continent from which to choose their fields. And even though they should have found it impracticable to push west of the Appalachian Mountains, they still found at their disposal such an abundance of rich land, a small proportion of which was required for their support, that there could be no thought of charging rent. But the population rapidly increased in numbers, while the quantity of land never increased. Even in the case of the new country, after a few decades there are enough people to occupy all the most fertile and well-located land. Then others are born requiring nourishment from the fruits of the field. Since the yield of the richest and most desirable land is not sufficient to sustain the existing population, some of necessity move out to the inferior and less advantageously situated land. Because people are compelled to utilize inferior lands or to cultivate the better lands more intensively, the better land is at a premium. People are willing to pay for the use of it rather than move out to the poorer land. As the population becomes more dense they find it necessary to use the poorer grades of land, the pressure

finally bringing into cultivation that which yields a bare subsistence to those who work it. Then rent is paid for all except this poorest grade of land, for the reason that people prefer the better grades and because there is not enough of the better grades to go around.

If by doubling the amount of labor and capital used upon the best land we could double its productivity, or by quadrupling the labor and capital be sure of a fourfold return, and so on *ad infinitum*, it would never be necessary to resort to inferior land, and land would continue free to men. But it is found that after a certain point has been reached in the cultivation of land, any additional return from it can be obtained only at an increasing cost. For example, one hundred acres of land that yields 1500 bushels of wheat to the labor of one man with \$1000 of capital might yield 3000 bushels to two men with \$2000 of capital, but after that it would take the effort of more than one additional man with \$1000 of capital to obtain an additional 1500 bushels of wheat on this hundred acres of land. It might take four men with \$4000 instead of three men with \$3000 to treble the yield. This is an illustration of what is called the law of diminishing return from land. This being true, people are willing to pay for the use of the land.

Land is fixed in quantity. There are so many square miles and no more. There is no way of increasing this extent very appreciably. On the other hand there is no limit to the number of people who may be born. Human beings, like other forms of life, tend to increase in a geometric ratio. It is therefore inevitable that there should be more people desiring well-situated and fertile land than can be satisfied with the limited amount of such land. There is as yet no source from which the food supply and other raw materials may be obtained except the land. There come to be more people wanting the use of land than there is land to go around, therefore rent is



A RENTLESS TOWN ON THE EUPHRATES

If anyone should try to collect rent from these Bedouins, they could move their portable huts to other land

paid for its use. As Mill says: "It is at once evident that rent is the effect of monopoly; though the monopoly is a natural one, which may be regulated, which may even be held as a trust for the community generally, but which cannot be prevented from existing."¹

QUESTIONS

1. "Rent results from the differential advantages of certain plots of land." Explain.
2. What is "marginal land"?
3. Do you see any connection between the law of diminishing returns and rent?

SECTION 4. THE AMOUNT OF RENT

In an attempt to ascertain the amount of rent that is paid it is perhaps most expedient to assume at the outset perfectly free competition. We will assume on the part of the landlord, first, that it is immaterial to him who his tenant is, that he had just as soon take a new tenant as to retain one whose forebears had been upon the land for generations; second, that he will entertain no consideration other than the realization of the largest possible rent; third, that he knows and understands all the facts which in any way bear upon the highest rate that could be charged for the use of the land without driving away all who would be tenants. And we will assume on the part of the tenant, first, that he has the means to place himself elsewhere at his will; second, that he could carry with him his stock and fixtures, or their value; third, that he, as well as the landlord, has all necessary information and can intelligently canvass the varying advantages of a sufficient number of localities to make his choice practically indefinite; and fourth, that neither indolence, nor inertia, nor attachment to home, nor friends, nor country, nor any other inherent trait of character will intervene to keep him from where

¹ Principles of Economics, Book II, chap. xvi.

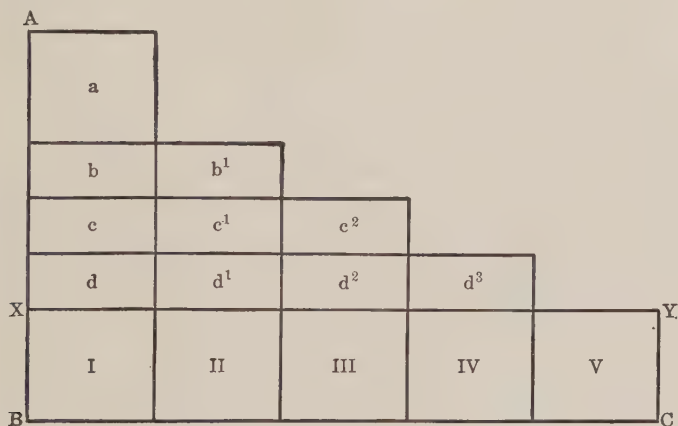
he can rent land of a given degree of productiveness, at the lowest annual rate.¹

Now assume, first, that the only cause for the payment of rent is the difference in the productivity of different portions of land, that is, a variety of grades responding with unequal harvests to the application of equal amounts of labor and capital. Then the amount of rent for any piece of land would be the difference between the value of the products obtained from it with the most profitable amounts of labor and capital and the value of the products which could be obtained from the poorest land in cultivation with the same amounts of labor and capital.

Suppose, for example, that the best grade of land will yield products — corn, wheat, cotton, or anything else that people consume — to the value of fifty dollars per acre each year. So long as there is enough such land, there will be no rent. But suppose the population increases until the products of the best grade of land are insufficient for their support, and it becomes necessary for a part of the people to move out on to the next best land, or that of the second grade, the value of products of which, we will say, is only \$40 an acre per annum. Then people would be willing to pay \$10 an acre for the use of the best grade of land, for the reason that they could make as much as by working the second-grade, or forty-dollar, land free of any charge for its use. But no more than \$10 an acre could be charged for the use of the land of the first grade, because it would then pay better to move out to the second-grade land. Whenever the demand for the products of the soil becomes sufficient to make it necessary to cultivate land of the third grade, that would yield only \$35 an acre per annum, then the second-grade land would rent for \$5 an acre and the first grade for \$15 an acre. For the difference between the value of what an acre of the third-grade land will produce and

¹ F. A. Walker, *Political Economy*, p. 204.

the value of the produce of an acre of the second-grade land is \$5. Likewise, the difference between the value of the produce of an acre of the third-grade land, \$35, and the value of the produce from the same amounts of labor and capital on an acre of the first-grade land, \$50, is \$15. In like manner, when the fourth-grade land, that yields to equal amounts of labor and capital products to the value of only \$30 an acre, is cultivated, the rent of the third-grade land will be \$5 per



acre, of the second-grade land \$10, of the first-grade land \$20. And so when the fifth-grade land, producing what would bring \$25 per acre, is utilized, then the fourth-grade land brings a rent of \$5 per acre, the third-grade land \$10, the second-grade land \$15, and the first-grade land \$25. To illustrate graphically, when the land represented by rectangle I in the figure is all that is in cultivation there is no rent; when II is cultivated also, but no more, it yields no rent, but I yields rent equal to $I - II$, which is "a" in the figure, or ten dollars.

Add rectangle III and the rent of $I = I - III$, which is $a + b$, or \$15; the rent of $II = II - III$, which is b^1 , or \$5. The

total rent of I + II then equals $a + b + b^1$, or \$20. Next add rectangle IV to represent land of the fourth grade, and we have :

The rent of I = I - IV = $a + b + c$, or \$20.

The rent of II = II - IV = $b^1 + c^1$, or \$10.

The rent of III = III - IV = c^2 , or \$5.

Then add rectangle V to represent land of the fifth grade, which yields only \$25 per acre.

The rent of I = I - V = $a + b + c + d$ = \$25

The rent of II = II - V = $b^1 + c^1 + d^1$ = \$15

The rent of III = III - V = $c^2 + d^2$ = \$10

The rent of IV = IV - V = d^3 = \$ 5

Total rent = \$55

In the second case let us assume that the only cause for rent is the difference in the location of land ; that is, that all land is of equal fertility, but that it costs more to carry to market the products of some land than of other land more favorably situated. This difference in the cost of transportation may be due to the difference in distance from market or in the character of the roads, or to the presence or absence of bridges over streams, of mudholes, sand beds, steep hills, or mountain barriers. A team can pull at least twice the load over a well-constructed highway that it can over an ordinary dirt road. When it is too wet to do anything else a farmer can carry his produce to market if he has a good road, otherwise he may not be able to get to town at all. There is a great difference between the cost of hauling farm products four or five miles on a level, macadamized road and of hauling them twenty-five or forty miles over an indifferent or poor road. One who has the advantage of good roads can market two two-ton loads in one day where another with poor roads can market only one one-ton load in two days. While the one markets eight tons, the other markets one ton. If it costs

the one fifty cents a ton to market his products, it costs the other four dollars a ton, though he raises the same products as his better-situated neighbor. The difference in the cost of transportation here is three dollars and fifty cents per ton. If an acre will produce one ton, the man farthest away will be willing to pay three dollars and fifty cents an acre rent to get the use of the land near enough to market to save him that amount in transportation. But he may not pay more than the difference in the cost of transportation, for if more were charged, he could make money by transporting his stuff the greater distance or over the worse roads. So in this case the amount of rent that a piece of land will bring will be equal to the difference between carrying to market the products from it and the cost of marketing products of the cultivated land least favorably situated as to market.

In the third place it may be assumed that all land is equally fertile and equally well located. If this seems too absurd, it may be assumed that all land is equally desirable, differences in location being made up by differences in fertility, so that any one acre will return to the application of labor and capital the same value as any other acre. In this case there would be no rent so long as there should be sufficient land to go around. But the time would come when there would be no more unoccupied land, when every acre would be cultivated, and when there would be a surplus of labor or of capital or of both beyond what had been found to be the most profitable adjustment of labor and capital to land. The surplus labor and capital would seek employment. The demand for land has increased, but the supply has remained fixed. So long as the supply of land was greater than the demand no rent could be charged for it, but the moment the demand becomes greater than the supply every acre becomes important. Intensive cultivation becomes necessary in order to supply the products needed for the sustenance of human beings. Because there

is this demand for more of the products of the soil, and because there is no more land available than what is already being cultivated, those who own the land are able to charge for the privilege of cultivating it.

For example, if the most profitable amounts of labor and capital that could be applied to an acre of land were rewarded with products of the value of fifty dollars, and if the amount of labor and capital should necessarily be doubled but the value of the products increased only to ninety dollars, this acre would then bring a rent of ten dollars.

With these extreme assumptions it is seen how the law of rent operates; how there are three causes of rent — differences of quality, of location, and of degree of intensive cultivation of land; and how the amount of rent is measured.

QUESTIONS

1. If the price of corn is \$1 per bushel, what sum would be paid for the use of an acre of land that yielded forty bushels of corn at an expense of 50 cents per bushel? If the price were 70 cents per bushel?

2. If the price of wheat is \$1 per bushel, what will tend to be the expense of growing wheat on the poorest land sown? Explain.

3. There are four tracts of land, all cultivated in wheat. The first yields ten bushels per acre; the second, fifteen bushels; the third, twenty bushels; the fourth, thirty bushels. Will the wheat on the poorest land sell for more or less than the wheat grown on the best land?

Supposing the price of wheat to be \$1 per bushel at the farm, what rent should be paid on each tract of land (assuming \$10 per acre to be the expenses of cultivating and harvesting)? Assuming that the expenses of cultivation vary, being \$10 per acre for ten-bushel land, \$12 per acre for fifteen-bushel land, \$15 per acre for twenty-bushel land, and \$18 per acre for thirty-bushel land, what rent should be paid on each tract of land if the price of wheat is \$1 per bushel?

SECTION 5. DIFFICULTIES OF MEASUREMENT

In reality the causes of rent do not operate separately; and even under the assumption of free competition measuring the amount of rent would not be so simple as might appear from the above. For one piece of land may yield rent because it is more fertile than other land similarly located, because it is better located as to market than other land of the same fertility. Then these causes do not operate in the same proportions in every case. The rent paid for a piece of land may be due largely to its fertility, while location and degree of intensive cultivation affect the amount of rent to a less extent. Or the amount of rent may be due almost entirely to the location of the land or to the intensiveness of its cultivation. Given a particular piece of land, it is no easy matter to point out the extent to which these three causes of rent operate, nor is it less difficult to determine the economic rent in a particular instance.

As Ricardo demonstrated,¹ whatever diminishes the inequality in the produce obtained from successive portions of labor and capital employed on the same or on new land tends to lower rent, and whatever increases that inequality necessarily tends to raise it. So the discovery of new and fertile lands will lower rent. Likewise, improvements in transportation facilities, making markets available to land hitherto inaccessible or more convenient for land already in cultivation, will lower rent. The building of the "granger" roads into the fertile farming regions of America has had this effect; so has the improvement of ocean transportation. Rent is also lowered by improvements that increase the productive powers of the land, or by improvement in methods of cultivation or of machinery so that the same value of products may be obtained with less labor. These are equivalent to

¹ "Political Economy," p. 60.

increasing the supply of land. Rent may also be lowered by the destructive agencies that lessen the demand for land, such as wars, famine, or any catastrophe that results in wholesale destruction of life and property. Rent is raised by increasing the demand for the germinating power of the land. The most obvious and most rapid increase of this demand is due to the multiplication of human beings. By careless and wasteful methods of agriculture, by what is called "land butchery," the germinating power of the soil may be destroyed or greatly lessened. This, of course, will raise rent by lessening the supply of land.

QUESTIONS

1. What effect did opening up the Middle West have on the rents in New England?
2. How did completion of the Erie Canal affect rents in northern Illinois?
3. Suppose an epidemic should destroy one half of the population, what would be the effect upon rent?
4. Suppose that scientists show how to make land suddenly twice as productive, how would rents be affected?

SECTION 6. THE INFLUENCE OF LOCATION, AND URBAN RENT

Before going further it is important to notice the great influence of location in determining rent. As has been observed, location affects the rent of agricultural lands. Men not only use the land for its products but for building-sites for their residences, factories, stores, shops, offices, and playhouses. Where there is a great congestion of people in cities the demand for land for this purpose becomes very urgent. Of course the amount paid for the use of a good building-site will greatly exceed the agricultural rent for the same land. The payment for land for such use is called ground rent. Any land, from the most fertile to the most barren, will yield ground rent provided men decide to build a city upon it. The amount

varies with the size of the city and the purpose of the building to be erected and its relation to the other buildings of the city. The land that brings the highest rent in America is to be found on Manhattan Island.

On the basis of desirability for building purposes the land in a city or town may be graded from that occupied by department stores and bank buildings down to that in the suburbs, which brings for building-sites but little more than it would bring for agricultural purposes. The amount of rent that will be paid for an acre of land in the heart of a great metropolis, where the greatest multitudes of people pass, is amazing and well-nigh limitless. A change in the direction of growth of a city or in the distribution of its inhabitants will influence greatly the rents of the localities affected.

Urban-site rent is due to the relative advantages of location. The value of sites for dwellings depends upon the desirability of the location to those with means to purchase a residence. The desirability of the location may be due to the attractiveness of the view, to the frontage on boulevards, parks, or open spaces, to convenience of access, or to some intrinsic advantage. Then, too, proximity to one's kind may explain the desirability of a location. There was once an addition to an American city which lacked in intrinsic advantages. The promoter was able to persuade two or three social leaders to build homes there. Others in the same "set" soon followed. The socially ambitious became anxious to get into that neighborhood. Within three years it had come to pass that when a daughter of a well-to-do family in that city married it was taken for granted that she could hardly be happy unless she could have a house in this "exclusive" addition.

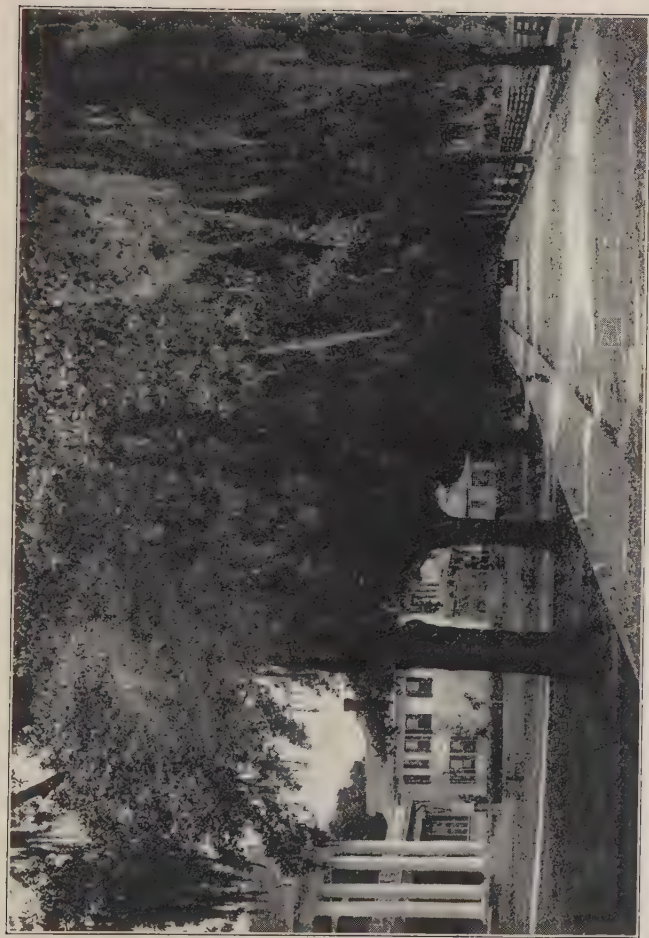
Manufacturing-sites have value because of such intrinsic advantages as nearness to a harbor, to water power, or to raw materials. Transportation facilities, access to customers,

opportunities to utilize by-products, are important considerations.

Sites for wholesale and jobbing establishments are considered most desirable when near to similar establishments, especially so if the financial district be close by or easily reached.

The advantage of some sites over others for retail trading usually consists in accessibility and familiarity. The sites most accessible are those where thoroughfares and means of transportation converge. A site is most advantageous for a particular retail business where the greatest number of patrons of that business pass in the most leisurely way. There is often a struggle over the location of the post office, because wherever the post office is located many people will have occasion to go. This will make the adjacent sites more desirable for certain retail trade. In our day show windows and display are important in attracting attention of passers-by. In warm climates rents are usually higher on the south and west sides of the street, because they are more comfortable during the afternoons, especially in warm weather, and goods may be exhibited with less danger of their being spoiled. However, in cold climates, as in Petrograd, the sunny side of the street is more attractive to passers-by, and consequently rents are higher on that side.

Prices are not necessarily higher in an establishment because it pays a higher ground rent than others; in fact, prices may be lower in the great department stores down town than in suburban stores, where rents are low. The advantage of a good location consists in the possible increase in the turnover of the capital invested. In a country store the turnover may be only once or twice a year; in a down-town retail store the turnover may be eight or ten or even more times a year. Suppose a suburban stock of goods represents an investment of \$10,000 and suppose the turnover to be twice a year. If



A DESIRABLE RESIDENTIAL DISTRICT

In an attractive and fashionable suburb rents are much higher than in a shabby and unattractive one

gross profits average 30 per cent, this store can earn twice 30 per cent of \$10,000; that is, \$6000. With a like investment down town the turnover would be, say, four times a year; that is, once each quarter the entire stock would be sold out and replaced. In such a case, if the rate of profits be the same, the gross earnings would be four times 30 per cent of \$10,000; that is, \$12,000. By going down town the merchant could pay \$5000 a year additional rent and still make \$1000 a year more than was possible in the suburbs.

However, a store may cater to the snobbish and purposely charge higher prices for the same quality of goods sold in a less central block or establishment.

Again, a city offers a ready market for farm products, and land located within short distances from the city will be cultivated very intensively, and therefore yield large rents in addition to the mere advantage in cost of transportation by reason of being near a market. The fact that the producer can get his vegetables to the consumer while they are still fresh, and at the very hour they are wanted, justifies the very intensive farming and rise of rent on the land so situated.

The location of water power determines whether it will be used at all or not. If it be near enough to human beings and other factors of production to make its use profitable, rent may be paid for its use, the amount being determined by the convenience of the location and the quantity or availability of the power. The same thing is true of mines. There are many rich mineral deposits that are so inaccessible as to make the mining of them impracticable because of the expense of marketing the products. Not only does the principle of rent apply to the use of mines as of other natural agents, but an additional fact must be remembered which is due to the nature of a mine. Land may be used forever without exhausting its germinating power. But when mineral deposits are removed, other deposits do not replace them; the products of mining

must not be sold merely for enough to remunerate adequately the various factors of production, but the returns must be big enough in addition thereto (by the time all the deposits have been removed) to cover or equal the value of the mine.

QUESTIONS

1. "Our prices are low because our rents are low." Is that true? Explain.
2. Why are rents high down town? How does the five-and-ten-cent store pay such rents?
3. Give an example in your town of stores that cater to those willing to pay a high price. For what do their customers pay?

SECTION 7. MARKET RENT

At the beginning of the discussion of the amount of rent absolutely free competition was assumed. Free competition is not often realized. Under its assumption we have discussed the processes by which the amount of true, or economic, rent is determined. What the farmer pays for the use of the land is called the market rent and may or may not be the same as the economic rent. As Mill says: "The law of rent is modified or disturbed in individual cases by pending contracts, individual miscalculations, the influence of habit, and even the particular feelings and dispositions of the people concerned."¹ Custom has much to do with the amount of rent charged. It is the almost universal practice through the South to charge crop rent, one third of the corn and one fourth of the cotton. Because the black land of central Texas is so fertile that farmers are willing to pay a money bonus in addition to the customary crop rent, a governor of the state has advocated a statute to limit rent to a "third and fourth" of the annual crop. Though there is a great variety of land of every degree of fertility, and a vast difference in

¹ Principles of Economics, Book II, chap. iv.

convenience of location as to market and the response to intensive cultivation, yet, with few exceptions, the same rent is paid for all land in a number of very important agricultural states. But this may be said: that though custom or prejudice or ignorance may interfere, yet the market price actually paid for rent tends to conform to the amount of economic rent.

Rent goes to the landowner without affecting the price of the products of the soil. The price of goods is determined by demand and supply. So if landlords were to remit the rents, they would merely be pocketed by the tenants, and there would be no further result than a transfer of funds from one to the other. If the government should step in and forbid the collection of rent, it would be in effect to give the tenants the benefits of ownership. No one else would be benefited. The cost of living would remain the same as before. The amount of goods would neither be increased nor decreased, unless this extra reward of the tenants should remove in part the incentive for effort and thereby decrease the supply of products, and thus raise their price. The number of consumers would not be diminished, nor the strength of their desires, nor their ability to purchase. Prices would continue as before. The tenant would not sell his produce for less merely because his landlord was sentimental enough to remit to him the rent or the government erratic enough to tax landowners for his benefit.

It is sometimes argued that while rent is due to the productivity of the land, landowners are not necessarily productive; that in so far as they are merely receivers of rent they are mere parasites; that they did not create the land, and therefore contribute nothing to society by permitting their land to be used; that they receive a share of the product of others without giving any aid to production in return.¹

¹ Carver, *Distribution of Wealth*, p. 203.

This is an attack upon one form of the right of private property. Those holding such views usually contend for a "single tax" (making all taxation rest on land alone) or for community ownership of land. The policy of private ownership of land was adopted by Teutonic peoples of their own free will; it was not imposed upon them. It seems to have resulted from the experience of the race. Whether the right of private property in land has already served its purpose and in the evolution of human society is to be discarded is yet to be seen. There are evidences that it is yet well rooted.

As a justification of individual ownership of land it is often pointed out that the surest way to conserve the germinating power of the soil is to make it to men's interest to do so, that those who use land which they do not own are very wasteful of its resources, and that it is necessary to restrain them by the oversight of someone who has more interest than an ordinary official would have. It is easy to demonstrate that the energies of the soil have been better preserved in countries where there is private ownership of land than where it is owned by the government. Then, landowners are conservative. When a man acquires property he is more thoughtful of the consequences of government policy, and the effect is to give more stability to society than could be had otherwise. Private ownership gives more flexibility in the management of land than could be had through government management that would be efficient enough to prevent exploitation. Furthermore, the example of private ownership of land is a great stimulus to saving and the accumulation of capital. It also, like the ownership of capital, helps to furnish us with a leisure class, some members of which are always of great service to their community, in spite of what may be said of those who abuse the privileges of their leisure.

This part of the discussion no doubt belongs more properly to other fields. It is the business of political economy to

state the law of rent, how it is determined and how it operates. The problem of regulating men who by their cleverness would with unfair means turn the principle of rent to their personal advantage may be left to ethics and political science.

QUESTIONS

1. What is "market" rent? Why does market rent often fail to coincide with economic rent?
2. If landlords remitted the rent would prices be different? Why?
3. Does rent influence price? Does price affect the amount of rent?
4. State arguments for and against a tax upon rent.
5. Should owners of land who cultivate their own land be taxed less than those who do not cultivate it themselves?
6. The rentals from an office building amount to \$75,000 a year. The building by itself is worth \$300,000. In order to provide for insurance, depreciation, and the like \$15,000 is expended each year. What is the value of the land upon which the building stands if the current rate of interest upon investments of equal security is 4 per cent? 5 per cent? 6 per cent?
7. A farm of one hundred acres brings to its absentee owner a rental of \$500 a year. Interest upon investments of equal security is 4 per cent. What is the value of the farm? If a tax of one per cent be levied, what would be the value of the land per acre?

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CHAPTER XIII

INTEREST

SECTION I. INTEREST DEFINED; WHY IT IS PAID

Under our system of private property those who own land are permitted to receive whatever others may be willing to pay them for its use; likewise, those who own capital are permitted to use it themselves or to sell its use for a price. The price which the use of capital will bring in the market is called interest. Interest may be defined as the payment made solely for the use of wealth. It is not a payment made to insure the repayment of the principal nor for the management of the principal. Interest grows out of those transactions which involve a change of control over wealth, with the understanding that the person receiving the control shall repay goods received or their equivalent at some time in the future. What is sold and what is bought is a right to use goods. It is agreed that similar goods or their equivalent shall be returned to the owner at a time specified. The value of the goods is stated in terms of money, and it is agreed that at some time in the future the same value shall be repaid. Such an agreement is necessary before one having goods will permit another to take and use them.

A person needing goods must buy them outright or else borrow them. In order to borrow them he must agree to return them or their equivalent. But, in addition, he must ordinarily agree to pay something for the privilege of using the borrowed goods. This is because (1) the owners of goods are not disposed as a rule to let others use their property for any length of time without requiring a payment; (2) because

the owners and the borrowers believe that those borrowing can make such profitable use of goods as to make possible a payment for the privilege of using them. What is paid solely for the privilege of using the goods of another is interest. Interest is paid because a loan confers a service.

Interest is expressed in terms of a percentage of the principal; for example, interest at 6 per cent per annum means that a borrower agrees to pay a lender an amount each year equal to 6 per cent of the value borrowed. An owner of a ranch might borrow money from a bank with which to stock the ranch. What would happen would be that the bank would take his note and perhaps a mortgage upon the cattle purchased. In effect the bank would buy the cattle and lend them to the stockman. If the cattle in our illustration should cost \$100,000, and interest were 8 per cent, the stockman would promise to repay \$100,000, and would further agree to pay at the rate of \$8000 a year for the loan. The \$8000 a year is the price the stockman is willing to pay to have his pasture stocked for his benefit. Or, again, a man or a group of men decide that they can make money by operating a factory. We will say that they have no money, but that their ability is such as to win confidence. They borrow from those who have money enough to construct and put into operation the factory, say \$1,000,000. What they really do is to persuade moneyed men to build a factory and lend it to them. For the use of the factory they agree to pay, we will say, \$60,000 a year. We commonly express this by saying that they borrowed \$1,000,000 at 6 per cent interest and built a factory with it. The 6 per cent per annum — the \$60,000 a year — is the price agreed upon for the use of the capital, in this case a factory, valued at \$1,000,000. This price is fixed in the market, and is the result of the adjustment of the supply of and the demand for capital. The interest rate is fixed in the market through the process of bargaining.

Sometimes borrowers are in such active competition with one another for the available supply of capital that the lenders are at a great advantage, and interest rates are high; at other times lenders are in such competition for the opportunities to lend capital that the borrowers are at a decided advantage, and interest rates are low. The amount paid as interest, or the rate of interest, is determined by the complex forces which meet in the market.

QUESTIONS

1. Define interest. Explain.
2. Why is interest paid?
3. How is interest expressed?

SECTION 2. WHAT DETERMINES THE RATE OF INTEREST

Interest is paid because a loan brings a service to the borrower. The forms of capital that will be desired will depend upon the development of the race and the state of the arts. The savage might be content with a club and spear to assist him in fishing; with more development he would utilize a canoe and net. Modern fishermen put to sea in well-equipped boats and pursue the whale into the waters of the Arctic and Antarctic. The primitive man scratches the ground with a crooked stick. The American farmer in the West propels his gangplow with a powerful engine.

The field for the investment of capital widens with advancement in the arts. Largely because of new devices in manufacturing, transportation, and communication, the last hundred years has seen a transition in many parts of the earth from a family economy to a local economy, and from a local to a national economy. The present tendency is toward an international economy. So marked and rapid has been the transformation that we speak of it as the Industrial Revolution, and trace its beginning to about 1770, when the first of the

labor-saving machines began to be introduced in the textile industries of England. The inventions of Arkwright, Hargreaves, Fulton, Morse, Howe, Edison, Marconi, and thousands of others completely revolutionized industry. Each new device is a new form of capital and calls for investments of capital. Factories have to be erected to turn out the new instruments, buildings erected in which to house them, means of transportation and communication enlarged to make easier the distribution of the products these new instruments aid in turning out. The many improvements in the forms of capital have been the occasion for the investment of prodigious sums in the countries of Europe. They have made possible the rapid and amazing growth of new countries. The chief natural advantage of a new country is the fertility of its virgin soil, the ease with which a poor living may be made. In other respects a new country is at a disadvantage. Its development depends upon the availability of markets and of capital. For example, new inventions have opened the markets of the world to every community in the United States. Flatboats and rafts were displaced on our rivers by steamboats. A system of canals was constructed to connect the rivers and lakes and tide-water. These, in turn, were supplemented by railways; then railroads were built into localities unfavored by waterways. The country has been cut up by a network of railways, pipe lines, telegraph and telephone lines. Steamship lines and cables connect our ports with those of every country. The products of every farm or ranch, the raw materials from every mine or quarry, are readily transported to where they are wanted. With the application of machinery the prairie region has become the granary of the nation, farming is becoming a business, dairying has taken on factory methods, mining methods have been so improved that iron ore is extracted from the deposits and loaded at the rate of a car per minute, factories of every description and warehouses without number

have sprung up along the rivers, lakes, canals, and railroads. This development has called for the investment of billions of dollars' worth of capital. What has been accomplished in the United States is being duplicated in Canada, Japan, New Zealand, Australia, parts of Africa and of Latin America.

This brings us to the market for capital. Bonds and stocks are frequently put out in large issues, representing an effective demand for more capital than any individual or locality can supply. In such cases underwriters, bond houses, stock-brokers, and banking institutions bring them to the attention of investors in many sections of the country, perhaps in many different nations. The English, for example, have made investments in every quarter of the globe, and in every conceivable kind of enterprise. The same is true to a less degree of the French. A farmer may want new improvements or machinery, and gives a mortgage upon the land as security. Manufacturers and jobbers advance goods to retail dealers who often sell them to customers on credit, taking liens on crops, or some form of capital, as security. Such transactions are facilitated through the banks. A going concern is in constant need of some forms of capital. The manager goes to the banks through which such capital is seeking investment, and gets it, giving as security a note signed by himself which represents the reliability of an established business. Capital is obtained through the banks every day by offering as security papers which represent ownership of existing forms of capital.

It is in the market that those who have capital meet those who demand it, or that the supply of capital is adjusted to the demand for it. The owners are willing to part with their capital on two conditions: first, that the equivalent in value shall be returned to them, and, second, that they receive an income while their capital is out of their possession. Those who demand capital have to be able to guarantee its return

or the return of its equivalent, and have to be willing to pay for the use of it during the period it is in their possession. What borrowers contract with lenders to pay for the use of the capital is called interest. The lenders or owners are able to exact such payment or interest because they possess something that is necessary to production, that others must have. The borrowers are willing to pay for the use of capital because it is indispensable to their purpose, and because a number want it and are able to pay for it. The process by which the borrower and the lender (and other bargainers) come to an agreement is called higgling. The owners want as much as they can possibly get for the use of their capital; the borrowers want the capital at the lowest possible rate of interest. As already mentioned, we speak of the "rate of interest" because the interest is reckoned in terms of a percentage of the principal sum, such percentage being payable at regular intervals of time, as annually, semiannually, or quarterly.

The owners of capital have their choice between consuming (or destroying) and lending. As was pointed out when we were considering the supply of capital and discussed motives for saving, the rate of interest may affect this decision. Often people own capital because they desire an income, and much capital would be put out at interest regardless of the rate. The owners put their capital usually in the hands of the experts of the market — the bankers. If they undertake to lend their capital themselves, they are governed largely by the opinion and judgment of the skilled men who manage the banks, bond houses, and the like. These professional lenders — experienced, wide-awake, keen, resourceful — estimate the quantity and forms of capital seeking investment; they also estimate the quantity and forms that would be demanded at a certain price or rate of interest. They desire to fix the rate at the point where all the capital seeking investment will be taken, but not any lower. It is their aim to

secure the maximum rate of interest at which about all the capital seeking investment will be taken. In making this decision they are influenced by their knowledge of the past, of present conditions, and the indications of what the future will be.

Those who demand the capital are influenced first by their estimate of what they can make with its assistance. They are engaged in production. And it is because the product they turn out will have a greater value than the expenses of production that they are willing to borrow capital to aid in such product. So long as the rate of interest is less than what they think they can realize with the assistance of the capital, they will be willing to borrow, but above the estimate the rate of interest cannot be placed; that is, there is a definite limit to the rate of interest on the demand side which is fixed by the conditions of production. It often happens that those who manage business overestimate their own powers or the value of their future products, and under the influence of such incorrect estimate bid too high for capital and suffer loss. In making their estimates of how much the future product will be worth they have to be guided by experience and their ability to analyze and weigh the existing influences. They also try to determine how much capital is being offered for investment, and how much besides their own demands is being sought.

The lenders and borrowers meet. Each has some knowledge of present conditions, each has limitations imposed by the nature and character of his business, and each knows something of the needs, desires, and ability of the other. From their negotiations a rate of interest results.

It is obvious that the adjustment is not perfect. There are limitations to the capacity of men to know and to judge. It is not possible to get all the evidence, nor is the significance of the facts always apparent. Men are often conservative,

and are slow to depart from past practices and methods. Custom, as we saw in the case of rent, frequently influences the rate of interest; that is, it may continue for a time higher or lower than it would be but for the habit of paying a certain rate. The Bank of France before 1914 seems to afford an illustration. For years the quotations were 3 per cent except in emergencies. This rate seems to have become customary, though it might vary from time to time from the rate in other countries.

There should be noted also that what is called interest often includes other things. For the sake of a larger income people are sometimes willing to give a certain amount of supervision to their investments. They may lend for a short time on residence property. They have the bother of investigating titles, looking after payment of taxes, insurance, collections, and reinvestments. A part of what they receive is evidently wages for management, payment for their effort or labor. Others will let out their capital on questionable security, and so receive something as insurance against risk. The rate on the bonds of the best-established governments is perhaps the most accurate expression we have of interest unmixed with payment for other factors. What is called the rate on call loans represents the most extreme case of the mixture of interest with payment for other factors and for risk. It fluctuates from less than 2 per cent to more than 100 per cent, being an index of the adjustment of the supply to the demand for means of payment.

The demand for capital is often greater in one industry or in one country than in another. The character of the wants of consumers determines the direction for the demand for capital. The demand for fast and comfortable vehicles has drawn much capital into the manufacture of automobiles. At the same time bicycles have ceased to be the vogue, and there is no longer any demand for additional capital in that business.

In equalizing the supply and demand of capital the mechanism of the market is called into action. A certain part of banking-capital is movable. Some additional capital comes into the banks, waiting investment. This capital is mobile and readily flows to the new industry or locality demanding it.

Then there is a flow from the business no longer needing capital to others wanting it. This sometimes takes place by operating plants at less than their capacity during the period that their products are not in great demand. This was the case of several manufacturing plants in America during 1914 and the winter of 1920-1921. The steel industry was a conspicuous example. Then there is the gradual transfer of capital from one industry to another by investing the proceeds of the one in the forms of capital of the other. When steamships began to displace wooden sailing vessels on the ocean, and it became evident that Great Britain had the advantage in constructing them, the people of New England invested the earnings from their ships in factories and railroads, so that by the time the ships had served their term the capital invested in them had been transferred to other enterprises.

The rate of interest has for generations shown a tendency to decrease for two reasons. In the first place, the supply of capital is constantly growing with added accumulation; in the second place, the expenses of production are coming to be nearer to the value of the product. However, since the World War it seems that interest is higher than a few years ago. It is doubtless true that the supply of capital has not increased very much during these years, but rather decreased. This has been due to poor crops, to bad management of some large enterprises, to the wastes of war, and to a number of other causes. Moreover, much has been spent unproductively instead of being saved; as, for example, the fabulous sums for automobiles and the continual streams of small

amounts that go to motion-picture shows instead of to savings banks. The governments of the world have recently been engaged in squandering the treasures of their citizens in warfare. The destruction of many billion dollars' worth of property and the need of capital after the war have contributed to the increase in the rate of interest. Risk and uncertainty have added a rather heavy insurance premium to the interest rate.

However, the losses of the countries from war will be rapidly replaced by the enforced savings of their people after peace has been actually restored, for many will save considerable amounts from narrow margins who under ordinary circumstances would save nothing from much wider margins. Then, the effects of bad crops may be offset by good ones in the future. And means will be devised from time to time for making the same capital do more work than before, such as improvements in processes of manufacture and transportation. Then, as the race continues to develop and governments become more stable, the security of private property will be increased, and savings thereby encouraged. All such influences increase the supply of capital seeking investments. The rate of interest depends on the relation of the supply of capital to the demand for it, and the supply and the demand influence each other.

QUESTIONS

1. What determines the forms of capital demanded?
2. "The field for the investment of capital widens with advancement in the arts." Discuss.
3. Discuss the market for capital. Describe some of the facilities of this market.
4. How is the interest rate reckoned?
5. Why is interest charged?
6. State the limits within which the rate of interest will be fixed.

7. Why does the rate of interest vary from time to time and from place to place? Why are different rates of interest fixed the same day in the same community?

8. How is capital transferred from one industry to another? Does the rate of interest have anything to do with such transfers?

9. During the past century has the rate of interest tended to increase or decrease?

10. Why was there an increase in the rate of interest in 1914-1920?

11. What do you think will be the future course of the rate of interest?

SECTION 3. SOME THEORIES OF INTEREST

It has been difficult for men to explain why interest should be paid and how much, if any, should be paid; in fact, there have been influential teachers who have argued that interest is not a just and fair charge. The ancient lawgivers of the Jews discouraged the payment of interest on a loan from one Jew to another. Aristotle argued to the Greeks that money is barren, and that it was absurd to talk about the offspring of money (the Greek word for interest, *tokos*, meant "offspring"). The Romans did not believe that interest could be justified in transactions between Romans. During the Middle Ages the Church fathers called interest usury and condemned interest charges.

In modern times interest has come to be taken as a matter of course. Very few protest that it is not justified. Its payment is one of the most common transactions. The payment of interest is as fundamental in modern business as is the payment of wages or as is the institution of private property. The fact that the payment of interest is so familiar a practice and is universal makes its explanation all the more important.

Attempts at such an explanation have given rise to several well-known theories of interest:

1. The time-preference theory, which explains the payment of interest as any preference, one way or the other, between goods to be got at different points of time; for example, it is pointed out that men prefer goods in the present for immediate use over goods to be had in the future, that one will exchange goods which he will possess at a future date for a less value of goods for immediate use.

2. Those approaching the explanation of interest from the supply side of the problem have offered the abstinence theory. According to this theory interest is a payment for abstaining from the consumption of wealth, and the rate has to be high enough to persuade owners of wealth to save enough of it to meet the requirements of production.

3. Another explanation of interest is known as the productivity theory. According to those who hold to this theory, capital is productive, and the additions to the value of the output of an organization traceable to particular additions of capital determine how much, if anything, managers will pay for the use of such capital; and the rate of interest paid for all capital will be determined by the productivity of the last units the managers can afford to add. That is usually expressed by saying that the rate of interest is determined by the marginal productivity of capital.

Each of these theories contains much of truth. In an elementary course we can hardly go into an elaboration and criticism of the various theories of interest.

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CHAPTER XIV

WAGES

SECTION I. SOME GENERALIZATIONS

Wages is what is paid for human effort. The terms "real wages" and "money wages" are frequently used. By real wages is meant the amount of things of value that a laborer receives for his effort. This effort may be mental or physical or both. By money wages is meant the amount of money that a laborer receives for his effort. In speaking of real wages Adam Smith says:

The real wages of labor may be said to consist in the quantity of the necessaries and conveniences of life that are given for it; its nominal wages is the quantity of money. The laborer is rich or poor, is well or ill rewarded, in proportion to the real, not the nominal, wages of his labor.

By nominal wages he means money wages. There are many people who think only of money wages. They count themselves poorly paid or well paid according to the number of dollars they receive per day or week. They never consider how much the money will buy, nor that their real prosperity is in proportion to the amount of commodities for which their money wages will exchange. A roadmaster on the International and Great Northern Railroad in Old Mexico once told the writer that he never permitted his section foremen to pay their hands in American money; one reason given was that they received twice as many dollars in Mexican money, and would think themselves underpaid if given the equivalent in American currency. During the past twenty years prices have universally risen; that is, money has become cheaper. Many people think

themselves more prosperous now than they were twenty years ago because their income is greater in dollars and cents, whereas in reality they can get no more goods for their larger income now than they could then, when they were receiving much less money.

What is the principle governing the general sum paid as wages? Labor is ineffective without the assistance of capital, and capital is useless without labor. In production not only are labor and capital both necessary but each is essential to the other. The product is the result of the application of labor and capital to the forces of nature. We have seen how rent is determined. The point of division between wages and interest is fixed by the relative abundance or scarcity of labor and capital.¹ While this is the principle that determines the entire sum paid for wages, it does not determine the rate of wages for any particular class of laborers nor for any individual.

Since the point of division between wages and interest is fixed by the relative abundance or scarcity of labor and capital, it can be seen that the presence of relatively much labor will make laborers anxious for employment and willing to take a less share. Also if capital increases more rapidly in proportion to the amount of labor seeking employment, wages will rise. For example, at the close of the World War people in the countries that were engaged in the war found themselves heavily taxed, their industries paralyzed, and themselves facing terrible privations, so that multitudes of them decided to emigrate to America. Suppose barriers should be lowered and there should be an influx of five or ten million immigrants in one year. About all our capital would be already employed, our industries manned to about their capacity. Then the presence of so many hungry laborers would inevitably reduce wages, for capital would have the relative

¹ Laughlin, *Elements of Political Economy*, p. 215.

advantage. Labor and capital have to work together. In this case labor is the more anxious to secure employment, so, capital being more limited, labor of necessity accepts a smaller share. This is because the laborer can do nothing — that is, can find no employment — without the existence of capital for him to use. There must be machines or plows or tools. In this case there is just so much capital in existence. The number of factories and machines and tools is definite and fixed. It takes time to increase or make additions to them. The laborers are without resources and bid against one another for the privilege of using the existing capital. Perhaps the only way to give them all employment would be to work the machines faster and thereby require the maximum energy and attention of the laborer. Since this could be sustained but a few hours, frequent shifts of crews could be made. In this way all could be employed. But the addition to the amount or to the total value of the products would not likely be in proportion to the addition of laborers. Since but little would be added to the amount paid for wages, and that little would not be commensurate with the number of laborers added, the laborers, as a result of the sudden addition to their numbers, would be able to get employment for only a shorter period each day, would have to work at a greater nervous tension during those hours, and would receive much less per hour than formerly.

The productiveness of a country's industries determines the possibilities of the general level of wages. Wages, like rent and interest, must be paid out of the product. It is obvious that a higher wage level is possible in a country where industry is productive than in one where there is relatively less production. High wages in such a country are possible but not necessarily certain. In the West Indies two hundred years ago, and in the Mississippi bottom lands before the Civil War, agriculture was exceedingly productive, but

the agricultural laborers were slaves and received a mere subsistence. Before the Civil War New England manufacturers were making use of highly improved machinery and in many of the mills the laborers were unusually intelligent and efficient, being for most part the daughters of New England farmers. With high production and good markets for the products, high wages were evidently possible, yet as a matter of fact wages were low. Low wages were paid for long hours of toil. The industries were productive, the laborers were intelligent and industrious, but the wages were low. Today some of our most productive enterprises pay notoriously low wages.

Wages, too, are fixed through bargaining. The bargainers are employers and employees. The result of the bargain is a wage contract. Within limits the wage rate is determined by the relative bargaining strength of the parties to the wage contract.

We say "within limits." What are the limits within which wages will be fixed? There is a maximum beyond which wages cannot be raised, except temporarily, and there is a minimum below which they cannot be forced for very long at a time. The upper, or maximum, limit to wages is imposed by the productivity of industry. Wages have to come out of the value of the product. They cannot be permanently raised beyond the value of the product; they cannot, except temporarily, be raised to the level of the value of the product, because out of that value rent and interest must be paid, as well as taxes, upkeep of capital, and insurance. Upkeep and replacement of capital must be provided for, else capital would perish and industry be paralyzed. Taxes would have to be sufficient to maintain a government able to protect property and to require the performance of contracts. Rent would have to be enough to obtain the use of necessary land. Interest would have to be adequate to attract needed capital.

Up to the limit of the value of the product, modified by these considerations, it is possible to increase wages. The lower, or minimum, limit to wages is imposed by the scale of living necessary for the subsistence of laborers. This is true in the long run. Though temporarily for all, and in individual cases for many, wages may be reduced below the minimum requirements of subsistence. The requirements of a customary scale of living are a formidable barrier to the reduction of wages.

Between these limits there is a wide range through which wages may fluctuate. Just where they will be fixed is decided through a process of bargaining.

QUESTIONS

1. Define wages. Distinguish between nominal and real wages. Illustrate.
2. What fixes the point of division between wages and interest? Explain.
3. What would be the effect upon wages of a sudden and great influx of immigrants? Why do you answer as you do?
4. Could high wages be paid if production were small?
5. Are wages always high where production is great? Explain.
6. If wages were for long less than what is necessary to subsist, what would happen to laborers? If they were above what the business could pay, what would happen to employers? Would injury to laborers be injury to employers or vice versa?

SECTION 2. INFLUENCES DETERMINING WAGES

Within the maximum and minimum limits, what influences determine wages?

First, those influences which affect the bargaining strength of the employers. These are the presence or absence of competition among employers for the services of laborers; the ability of the employer to wait, as affected by rush orders, the necessity for preserving perishable products, the effect upon the plant or patronage of closing down, running part

time, or utilizing a part of the plant, and the support of associates in the same line of business or of bankers during a waiting period; the employer's knowledge of conditions which affect his industry; the degree of efficiency of business men; the character of laws governing the relations of employers and of employees.

Second, those influences which affect the bargaining power of employees. These are the relative scarcity or abundance of those able and desiring to render the services required; the presence or absence of restrictions upon immigration; the extent of information concerning the demand for workers; the mobility of the workers; the ability of the workers to wait; the character of the laws governing the relations of employers and employees; the degree of efficiency of laborers; the extent and character of organization among laborers.

Of the influences mentioned, the ability to wait is one of the most important. The employer has a reserve of capital. Moreover, he probably employs more than one laborer. The greater the number of employees of a given class the less indispensable is any one. If an employer engages the services of one hundred laborers for a given class of work, there is little difference in many cases between what he can get from ninety-nine and what one hundred will accomplish. On the other hand the wage-earner ordinarily has very small, if any savings to sustain him through a period of waiting. His services must be rendered within time. A day lost from work is a day gone forever. Energy that might have been expended in useful work that day can never be utilized again. The laborer requires food regularly. He cannot quit eating while out of work. His services are all he usually has to exchange for food. These facts explain the advantage of the employer over the employee in the matter of waiting. This makes the individual employer more necessary to the individual laborer than is the individual laborer to the individual employer.

Through organization of laborers, these positions may be equalized or even reversed. Also if for any reason laborers should become very scarce as compared with employers, their relative positions would be changed.

QUESTIONS

1. "The wage of any class of labor is set, as is the price of wheat, at a point that will just clear the market." Is this true? Discuss. Compare the terms "marginal productivity" of labor and "marginal utility" of wheat. (H.)

2. Make a list of influences which affect the bargaining power of parties to a wage-contract. From your list of such influences which do you judge is usually stronger in bargaining, the employer or the employee?

SECTION 3. ADJUSTMENT OF THE SUPPLY OF AND THE DEMAND FOR LABOR

Let us now consider the adjustment of the supply of labor¹ to the demand for it.

We have to reckon with the fact that individual persons are not alike. The supply of labor is made up of millions of human beings, each one differing from all others in strength, skill, mental ability, and character. When a laborer is wanted it may not be sufficient that a man is at hand ready to perform labor. The work may be of such a nature that a man with certain gifts or attainments is required. Cairnes² called attention to the fact that there are groups of labor that are not in competition with one another, while the individuals who compose these noncompeting groups are in competition with one another.

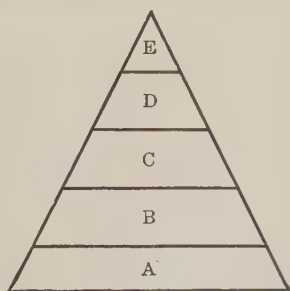
We may say that in the United States especially there are five classes of laborers. The lines of cleavage between these are not clearly drawn, but each class shades imperceptibly

¹ It would be well at this point to turn back and review chap. iv.

² Political Economy, p. 239.

into the other. The first class is composed of those who have the least outlook and the least training. There are among these some who might rise to a better class but for some misfortune, or bad habit, such as alcoholism. The second class are those who have some quality of mind or character that those of the first class do not possess, such as men who serve their establishments for years as porters, or who tend a machine in a purely mechanical manner without understanding it. The third class includes those who are more reliable and who have had some training, such as locomotive engineers, carpenters, or plumbers. To perform the duties assigned to them they must have undergone an apprenticeship or a somewhat extended period of preparation, and they must also possess some ability, powers of judgment, and skill. In the fourth class are those who have had a long and expensive course of education and who have constructive ability. Such are civil engineers, the men who build the tunnels beneath our rivers and cut our canals. In the fifth class are those who are capable of planning and directing great enterprises, men who have nerve, judgment, outlook, courage, and the willingness to assume responsibility, the "Captains of Industry," or managers.

It is obvious that these groups do not contain equal numbers. There are perhaps fewer in the first class than in the second, more in the second than in the third, and fewest in the fifth. If the laborers of the country were arranged in strata, they would form a pyramid something like the figure above, where *A* represents the first class, which may now be called the *A* class; *B* represents the second class; and so on through the list to the fifth, or *E* class.



It is obvious that there is no competition between members of these different groups. Those in the *A* class cannot compete with those of any other group, nor can the *B* class compete with those above them, nor the *C* class with the *D* or *E* classes, nor the *D* class with the *E* class. There is the possibility of an individual rising from one class to another, and one of the glories of America is that some men have climbed from the *A* to the *E* class. But when he enters the higher group he ceases to be a member of the lower from which he ascended. There is also the possibility of a member of a higher group descending into a lower one; for example, because of disease or inebriety. But when he falls through misfortune or vicious habits, he ceases to be a member of the higher class and becomes a member of the lower class. No one will choose to descend from a class to any lower class, for the reason that the higher the group the greater the demand in proportion to the supply of laborers, and consequently the better bargain one can make. To illustrate: when the directors of a great railroad want a president for the company, they do not look among their section hands nor their brakemen nor their locomotive engineers nor their civil engineers. The fact that immigrants are entering the country each day at Ellis Island does not help them, for they know that a railroad president cannot be found among steerage passengers. Again, if a hodcarrier were needed, and a great organizer of industry were playing golf across the way and appeared to be the only man not engaged in productive labor in the community, it is not likely that he would be called upon. Not that he could not carry brick up and down a ladder but because he would not choose to do so for the reason that he possesses such a rare and superb ability that he is able practically to fix his own wages, while there are many who can do nothing better than carry brick. It is conceivable that the great business man might have so dissipated his powers as to have become a

shiftless sot, a confirmed member of the *A* class, and have spent his less profitable days in whining at the injustice of society and anathematizing the "tyranny of capital."

Not only is there no competition between these groups, but there is not perfect competition between the members within the groups. There are influences that greatly affect the mobility of labor. Among the more important of these are distance, which may impede the movements of labor from one plant to another; policies of the government, which may be regarded as favorable or unfavorable and tend to hold or drive out laborers; religious affiliations, which may be such as to hold individuals in a community contrary to their economic interests; climate, which may be regarded as favorable or unfavorable and be a strong influence in determining the abode of laborers. Marshall¹ says: "If equal wages were offered in ships going to the Mediterranean and the North Sea, the former would be full and the latter empty; so higher wages are offered to the latter ships to counter-balance the disadvantage of the ungenial climate to which they sail."

The prospect of adventure is another strong influence, and no doubt induced many to emigrate to California when the mere prospect of finding gold would not have been sufficient. Clean or dirty work is another factor. Clerks in stores prefer their employment to working in the fields, though they sometimes receive less than farm hands. Personal honor or social position is another important factor. It accounts in part for county officers' receiving no more than plumbers.

Constant employment is another weighty consideration. The relatively high wages of brickmasons has long been ascribed to their irregular employment, due in part to the variations in activity in building and in part to the changes in the weather. Then the certainty or uncertainty of success

¹ Economics of Industry, p. 103.

has much to do with the remuneration that may be secured in an employment. Mill¹ says :

One of the best points illustrated by Adam Smith is the influence exercised on the remuneration of an employment by the uncertainty of success in it. If the chances are great of a total failure, the reward in case of success must be sufficient to make up, in the general estimation, for those adverse chances. Put your son apprentice to a shoemaker, there is little doubt of his learning to make a pair of shoes ; but send him to study law, it is at least twenty to one if ever he makes such efficiency as will enable him to live by the business. In a perfectly fair lottery those who draw the prizes ought to gain all that is lost by those who draw the blanks. In a profession where twenty fail to one that succeeds that one ought to gain all that should have been gained by the unsuccessful twenty.

Again, custom is of tremendous influence in determining wages. This is most noticeable in the case of wages of women. A man and a woman may teach in the same school, giving instruction to the same pupils, and the woman may be the better instructor, yet the man may receive from 25 to 50 per cent more than she. Yet in the case of women it seems that their wages are also affected by the fact that they may not continue in their employment. When a woman marries she frequently resigns her position ; on the other hand, if a man marries, he is regarded as a more desirable employee, for home ties will keep him from moving so readily, and he may become economically dependent upon his employer. So if an employer were required to pay women the same wages as men, he would probably prefer the men, and the women would in many instances find themselves legislated out of employment. However, custom causes much greater and more frequent differences between the wages of men and women than would otherwise exist ; and custom fixes the charge for many services in different localities, and sets the wages of farm hands for years together.

¹ Principles of Political Economy, Book II, No. 1, chap. xii.

QUESTIONS

1. Classify the laborers of your community. Is there competition between the different classes?
2. Why do women usually receive lower wages than men of the same degree of skill?
3. "There should be equal pay for equal work" is frequently asserted by those who are not satisfied that men should have higher wages in some employments than women receive in the same kind of positions. State and defend your position.

SECTION 4. THE PRINCIPLE OF DISTRIBUTION BETWEEN DIFFERENT CLASSES OF LABOR

Keeping in mind these influences that cause differences in the rate of wages, even where the same degree of skill is required, we will turn to the principle of distribution between the different classes of labor: this principle is the relation between the supply of any one kind of labor and the demand for it.

Since the supply of unskilled laborers tends to keep pace with the demand, it is very difficult to secure an increase in their wages. Often the supply of such labor so far exceeds the demand that it is impossible to resist a lowering of wages, while many are not able to secure employment even at the lower rate. Unskilled laborers are at a disadvantage in bargaining for wages. They are ignorant of the facts and cannot find out the real condition of the market, and worse still they have no capital. As John Stuart Mill¹ well says:

The really exhausting and really repulsive labors, instead of being better paid than others, are almost invariably paid the worst of all, because performed by those who have no choice. If the laborers in the aggregate instead of exceeding, fell short of the amount of employment, work which was generally disliked would not be undertaken, except for more than ordinary wages. But,

¹ Principles of Political Economy, Book II, No. 1, chap. xiv.

when the supply of labor so far exceeds the demand for it that to find employment at all is an uncertainty, and to be offered it on any terms a favor, the case is totally the reverse.

In making a bargain with a wideawake and resourceful employer, the unskilled fellow often finds that he must take what is offered him, for if he refuses, others stand ready to take the place. The employers are therefore usually able to fix the rate of wages at the point that will give them the selection of the more desirable of the unskilled.

Until about twenty-five years ago America was regarded as the asylum especially prepared by Providence for the poor. Free land was offered as a solution to the problem of the unemployed and as a panacea for the ills of the ignorant and propertyless. But free lands are no more. The frontier has forever disappeared. The industrial organization is becoming increasingly complex and the struggle for existence more severe. The hope of the unskilled lies in four directions. One is education — the sort of education that will equip them for a trade, some training in a craft; such preparation as will fit them for more skilled labor and at the same time make them dissatisfied with their low standard of living. Second, with this kind of education there should be every encouragement to the unskilled to become owners of capital. The consciousness of property, the independence of an income, will do most to promote the thrift and self-control that will result in raising and maintaining a higher standard of living. These people can at least be delivered from loan sharks and be afforded postal savings banks, mutual loan associations and insurance, safeguarded and properly managed. Third, organization, where they develop the capacity to organize.

In the fourth place, the state can, after all, protect this class of laborers against the oppression of unscrupulous or hard-pressed employers, and in large measure against their own indifference, ignorance, and shortsightedness. Conditions

under which they work can be strictly regulated, to the end that they be sanitary, not unhealthful, and reasonable precaution can be enforced to prevent accidents. The hours of employment may be limited. Some persons object that the leisure is frequently used up in dissipation, and that the unskilled are really better off at work than they would be loafing. Still, before improvement, there must be the opportunity to improve. There can be no wholesome recreation or instruction unless time be provided for such things. Working-hours can be shortened only to a reasonable minimum; and that reduction must necessarily be gradual. Society may have to adopt stringent measures to regulate amusements and some personal habits.

The minimum-wage law is urged by some thoughtful economists as a helpful measure. It is urged that the setting of a minimum wage will not work a hardship upon employers, for they will be left free to employ or to reject; that it will shift the competition to the quality of the work done, for employers will seek only the most efficient of those capable of doing the work so regulated; that it will encourage the introduction of improved machinery, call for a higher order of management, and bring society face to face with the problem of the unfit. Those who oppose such regulation point out the difficulties of enforcing the measure where both parties to the contract are satisfied with their bargain, and the fact that some who are capable of sustained effort may be unable to secure any kind of employment.

The state can forbid the labor of certain classes, such as little children, or women in some employments. It can compel children to attend school up to a certain age, and it can forbid early marriages and segregate the dissolute, those with hereditary diseases, and incurables.

Lifting up the unskilled will take time, much time, an immense amount of tedious and thankless effort. No city

ordinance, no law, no political legerdemain, will accomplish it ; they are only instruments that may be used by an enlightened community. The problem is the problem of human progress, and calls for all the patience, persistency, and resourcefulness of an intelligent Christian citizenship.

Turning now to skilled labor, we will first notice the influences that affect its supply. Merely to be born and grown up is all that is required to become an unskilled laborer. The mere fact of being in the world places one in the ranks of the unskilled, but to get out of this class into the *C* or *D* classes requires effort and the assistance of capital. In the first place there must be a period of preparation covering more or less time according to the vocation aimed at. To get into the *C* class requires an apprenticeship of several years, while the chances of ultimate success are greatly strengthened by at least the completion of the grammar school in childhood, while the high-school course is also very helpful. Those who aspire to the *D* class must undergo a more prolonged period of preparation, covering grammar school, high school, perhaps college, and a technical school. This means that having expended considerable money for an education after leaving the secondary school, one may begin at the bottom in his vocation at about the age of twenty-five. Some reach the *D* class without these educational advantages, but they pay the price in apprenticeship, in greater effort, and in surmounting increased difficulties. Not many have the power to make the sacrifices in the present that are essential to achieving such a distant gain. Young people reared in the homes of unskilled parents lack the environment necessary to awaken them to the rewards of prolonged preparation. Moreover, when stimulated to make the effort, they can expect little assistance from their parents, and may meet opposition in their own families, for many illiterate people are highly prejudiced against schools and education.

Consequently the vast majority yield to their limitations and are content to exist as grown-up children. Many well-trained and successful men find themselves greatly exercised to get their own children to make use of the advantages afforded them, so common are laziness and the lack of imagination and forethought necessary for estimating the future. Then, added to the difficulty of obtaining funds for support during the years of preparation, the indifference or prejudices of parents, and the carelessness or worthlessness of many young people is the lack of capacity of many who try to equip themselves. It is a common saying that a ten-thousand-dollar education cannot be tacked on to a twenty-five cent youth. Then, many who enter the higher groups of labor either fail or make a very poor showing. Not everyone who can run a locomotive can be trusted with a through passenger train. Honesty, dexterity, skill, good judgment, are unfortunately not so common qualities as one would like.

In addition to these limitations upon the supply of skilled labor due to the inherent qualities of people, are other limitations that grow out of the estimate of the relative importance or desirability of the different vocations. For example, law is very popular with college graduates. It is considered a stepping-stone to public life, a valuable training for business, a congenial employment for the studious, for those who enjoy public speaking, or delight in action. As seen from a distance there is much glamour about the practice of law; it has something of the fascination of the lottery because of the occasional great prizes that lawyers obtain. Consequently it is a much overcrowded profession, and many excellent lawyers eke out an existence out of all proportion to their ability and attainments. Medicine and the ministry are crowded to a somewhat less degree, but are overcrowded nevertheless. Commerce, agriculture, and industry offer excellent opportunities for success and competency, but thus far they have

secured a much too small percentage of the trained young people. This has in part been due to the curricula of the schools, to the ideals and perhaps narrow-mindedness of instructors, and to custom, a word which covers a multitude of fads and false notions.

The demand for skilled labor depends upon the advancement or development of the country and the state of the arts. A well-trained accountant would find little use for his services among the American Indians. An expert boiler-maker would have been unable to find employment at his trade in China half a century ago. In a progressive, wide-awake, industrial community, such as may be found in Great Britain or the United States, a great premium is placed upon ingenuity, and there is an increasing demand for reliable and skilled workmen. The direction of the demand is determined by the kind of products that are wanted. If people want liquors, there will be a demand for experts to devise tempting concoctions and to adjust the machinery to produce and put up the liquors, for coopers to furnish barrels and kegs, and for glass-blowers to supply bottles, and the like. If mankind reaches such a point of development that it desires other satisfactions than those afforded by destroying the nervous system with alcohol, there will no longer be a demand for those skilled in manufacturing beer and whisky. If the demand for their services suddenly ceases, there follows some suffering among the specialists of that business. In case the counties of the West and South should go extensively into building permanent highways, there would be a tremendous demand for civil engineers, and because of the limited supply they would have the advantage in bargaining for their wages, and would receive high wages. As the wealth of the country increases, and more capital is saved, men are constantly demanding new satisfactions. One of the latest is aërial navigation. There has been quite a demand for mechanics

who can make and repair aëroplanes, for those who can perfect the gasoline engine and adjust it to the requirements of the aëroplane, and especially for skilled operators of the machines. Not many years ago it was discovered that messages may be transmitted without wires, so there arose a demand for wireless telegraphers, and as the wireless service has come more into use, opportunities for employment of many men have been created. To be a telegrapher requires some training, and the wages have to be high enough to induce men to learn the business.

Not all trades that require equal preparation and skill pay the same wages. The wages depend upon the ratio of the demand to the number qualified and ready to render the services. If there be more lawyers than clients, the litigant can name the fee; if there be but one skilled mechanic available to forty impatient owners of "dead" automobiles, the wife of the mechanic is likely to be found patronizing the most fashionable and exclusive milliners. It is said that a certain cook employed by one of the New York hotels receives fifty thousand dollars a year, so it is evident that there is considerable demand for the particular services that he renders, and that there are very few who can perform them as satisfactorily as he. Since it takes time to master a trade, there is little competition between members of different trades. A carpenter cannot run a locomotive, a plumber cannot manage an electric plant, nor can a butcher trim hats. One trade may be oversupplied in proportion to the demand; then wages will be low, unless they are bolstered up by custom or some other artificial methods. The wages of skilled laborers are higher than those of unskilled because there is a greater demand for skilled laborers and a less proportionate supply. The supply does not readily increase in response to new demand, for the reasons mentioned above. The number of skilled workmen is limited, and it is rather difficult to increase

their number; while the only limit to the numbers of unskilled laborers is the means of subsistence, and the numbers readily and quickly respond to any increase in wages. If there were a situation where the supply of unskilled laborers were less than the demand for them, their wages would rise; and if their numbers were as limited as those of skilled laborers, they would receive for their services as much as or more than skilled workmen. During the gold rush in California a common laborer received ten dollars a day, and a washer-woman fifty cents per garment for laundering. It matters not how efficient a workman may be, if there be others equally efficient bidding against him for the same employment, his wages will be low. The price that labor brings in the market depends upon the supply offered relative to the demand. Here, as in the case of commodities, supply dominates utility. The effective remedies for low wages are such as promote human progress. As civilization advances, as men's wants multiply and the state of the arts improves, the demand for labor, especially for skilled labor, increases. There are more kinds of things to be done, more opportunities for initiative, for the exercise of mind and character.

We now come to consider the last class of laborers, the most skilled, the captains of industry, or managers. It is a matter of common knowledge that managers are scarce. But few men have the judgment and administrative ability necessary to adjust properly the factors of production in an enterprise. It is only a rare man who can assemble the machinery and materials and labor in the right proportion; who can keep his plant in the highest efficiency, buy supplies and materials at the right time, in the best market, and in the most economical amounts; who can get the maximum efficiency from his employees and keep them satisfied; who can find the best market for his products where the expense will be least, and the prices will yield the greatest net returns. Such men are

not developed by any prescribed course of preparation. Any average man by effort can become proficient in some one of the ordinary crafts or trades, but no system of education has yet been devised by which an average man may be transformed into the successful manager of a great business enterprise. Such a man is as apt to come from the farm by the way of an unpretentious country store, as did Mr. Rockefeller, as he is to come from a great university such as Mr. Rockefeller has founded. He may rise from the lowest ranks of the unskilled, as did James J. Hill, Sir Thomas Lipton, Charles Schwab, and Andrew Carnegie. But a hard fact that the world has to face is that too few of them come from any source. So rare is managerial ability of a high order that those who exercise it often become international figures, and their names and even many facts of their lives become familiar to millions of people. Their activities fill the columns of the papers, and popular magazines find it profitable to devote much of their space to portraying them. This ability does not seem to be inherited, for in many instances the sons of the captains of industry are hopeless failures. It is not acquired but developed. If we would increase the number, we must offer to everyone encouragement and opportunity to the end that no one who possesses this capacity may be lost in some obscure community or in a position which gives him no chance to discover his powers.

As to the demand for these men, General Walker ¹ says :

We have seen that in a primitive state of industrial society the employer does not appear. When, however, the forms of production become many and complex ; when hand tool is replaced by machine ; when many persons, of various degrees of strength and intelligence, are united in the same industrial operation ; when the materials consumed are gathered from distant lands, and the products, in turn, are distributed widely to consumers not known to the producer, and are sold largely upon credit ; when, more-

¹ Political Economy, p. 232.

over, a few simple, standard styles give way to ever-varying fashions, in materials, in form, in color, — in such a state the employer, the master, the entrepreneur, becomes a necessity of the situation. He performs a function which is indispensable to a large and varied production. . . . In the later stages of industrial development the mere possession of capital no longer constitutes the sole, or even the main qualification for employing labor. The laborer no longer looks to the employer to furnish merely food and tools and materials, but to furnish, also, technical skill, commercial knowledge, and powers of administration; to assume responsibilities and provide against contingencies; to shape and direct production and to organize and control the industrial machinery. . . . It is no longer true that a man becomes the employer of labor because he is a capitalist. Men command capital because they have the qualifications to employ labor. To men so endowed capital and labor alike resort, for the opportunity to perform their several functions and to entitle themselves to share in the product of industry.

In the present state of the arts these men are indispensable to carry on the processes of production and transportation. With each advance in industrial progress their services become all the more necessary. Because of the great demand for their services, and because of the relatively small number of them, managers occupy a monopoly position so far as their services are concerned. They receive more than any other class of laborers because their number in proportion to the demand for them is much less than is the case with any other group. They have great advantages as bargainers. What they receive for their services is their wages. In popular discussion and by some economists their income is frequently spoken of as "profits." This term is usually made to include the returns from their capital as well as from their services. In so far as they are capitalists they receive the same rate of interest on their investments as other people. It is their wages that distinguishes them so far as income is concerned. These wages are very high because they are in a favorable position and are able to make advantageous bargains. They

do not have to accept employment unless they can secure the rate of wages that they estimate that they should have. Unless they work, the wheels of industry slow down or stop. The laborers lower down envy them, and call them capitalists, and attribute their incomes to capitalism. But the managers are merely exceptionally gifted laborers. They sell their ability in the market, secure their great salaries or wages regardless of their capital, and have their wages guaranteed to them as does the most illiterate foreigner among the unskilled. Laborers in the lower groups fancy themselves merely opposed by capital when in reality they are in a struggle with their fellow workers the managers. The manager is well informed, intelligent, shrewd, keen, courageous, or else he would not be a manager, and accordingly he has the advantage of those below him, whom he is delegated to employ. It is for him to see that the business earns enough to pay rent, taxes, insurance, depreciation funds, interest, and wages. He cannot pay laborers a part of what he has contracted to pay others. He may exercise his power to pay them less at times than they should have and appropriate the gain to the stockholders and to increase his own salary. It is proper and reasonable that society, through the government, keep a close watch upon the manager to see that he does not abuse his power either in oppressing his fellow laborers or in defrauding his employers. But in any strike or contest for higher wages the demands of unskilled labor, or of the lower grades of skilled labor, cannot well go beyond what the manager thinks he can make the business earn and still pay the other claims and such wages for himself as he thinks he can get.

From an examination we have found many groups of laborers receiving different rates of wages, ranging from the dollar a day of the unskilled to the thousand dollars a day of the most successful managers. We have seen that many of these groups are noncompeting, and that members of each

group secure a rate determined by the number in the group and the demand for their particular services. We have seen how a great many influences are at work that account for the differences in the relative supply of one class of labor to the demand for it. It should be added that not all members of the same group are of equal efficiency. The employer observes each individual and estimates his worth according to the skill, reliability, or endurance displayed. If he is doing piecework, it is easier to check him up. The quality and grade of his work is estimated, and he is paid accordingly.

Frequently there are different rates of wages paid members of the same group employed to do the same kind of work. The less efficient are likely to get less than those who show more skill, turn out more pieces, make fewer errors, or are more punctual and dependable.

QUESTIONS

1. Why do the unskilled receive the lowest wages? How may their wages be increased?
2. Is the demand for unskilled workers increasing? If technical skill is not so essential for working at many tasks, name other qualifications which are essential.
3. Which would you prefer, to sweep the street or to attend to the duties of the mayor? Which is better paid? Why?
4. "Not all trades that require equal preparation and skill pay the same wages." Explain.
5. Show why different rates of wages are paid at the same time.
6. Why was Caruso's wage higher than that of a carpenter? Why does a great ball-player get a larger wage than a surgeon? Why is a coal miner's wage higher than the wage of a ribbon clerk? (H.)
7. "Wages depend upon the number of laborers in a given group." To what extent is this true? What determines the number of laborers in a given group? (H.)
8. State which of the following you would expect to be the more highly paid, and why: (1) a street-car conductor or a motorman;

(2) a surface-car motorman or a subway motorman; (3) a day-school teacher or a boarding-school teacher; (4) a trained nurse or a stenographer; (5) a steeplejack or a house painter; (6) a cotton-factory operator or a department-store clerk? (D.)

9. To what do you attribute social stratification? Is it possible to break down the barriers between the different groups?

SECTION 5. SOME WAGE THEORIES

Economists have sought to find a satisfactory explanation of wages. At the close of the eighteenth century it appeared to trained observers that the numbers of laborers increased in response to an increase in wages. Consequently the so-called Iron Law of wages was formulated. This was what we may better call the Subsistence Theory; that is that wages constantly tend to fall to the sum barely necessary to maintain the laborer and to bring up the next generation. This was to say that wages tended to equal the cost of maintaining the laborers. If wages were raised, more laborers would be born and would ultimately enter into competition for the increase, and then beat wages down again to the mere level of subsistence. On the other hand, if less than a subsistence were paid, some laborers or laborers' children would die off; the supply of laborers then being reduced, wages would again rise to meet the requirements of subsistence.

Developments during the past century have shown this theory to be inadequate. Earnings have increased among English, French, German, American, and other workers. Yet the birth rate has tended to fall as wages have been increased. In fact the falling birth rate has no doubt been one factor in raising wages. The native American wage-earners have received increasing wages, especially so in certain crafts. This increase in incomes has not been responded to by larger families; rather, families tend to become smaller.

Still, among the unreflecting peoples who have never known more than a bare living, the Subsistence Theory seems to have

much to support it. The great increase in the population in Egypt and India in recent years is attributed to the increased production of material goods which the people utilize not to increase their comfort but to maintain larger families. This is true of some in this country, such as those who often become casual laborers.

The Royal Commission in 1834 recommended that the English Poor Law be reformed, and the recommendation was based on this theory of wages. The theory yet influences the thought of influential groups. Much discussion of poor relief and opposition to reforms is based upon this theory.

Before the middle of the nineteenth century economists perceived that the Subsistence Theory of wages did not square with the facts. They were impressed by the roundabout process of production that had come to be so characteristic as a result of changes that we speak of as the Industrial Revolution. They saw wage-earners being maintained during weeks and months while some product was in process of manufacture. What wage-earners so consumed was obviously something that had been produced in the past. Since these goods were being devoted to production by being given to sustain laborers, they were designated as capital. There arose a theory that there is a predetermined fund out of which all wages are paid. "That being true wages will depend mainly upon the demand and supply of labor, or on the proportion between population and capital." This was called the Wages Fund Theory.

Those who held to the Wages Fund Theory made three assumptions upon which they based the proof of the theory: (1) that wages could be increased only at the expense of profits: (2) that a decrease in profits such as would result from increasing wages would drive capital from industry and thus lessen the demand for labor: (3) any increase in wages would attract laborers from other industries or else result in an

increase in population, and thus lessen wages. Within a generation after Mill wrote his *Principles of Political Economy* (1848) the Wages Fund Theory was discredited. It was pointed out that wages are often increased and that profits instead of being less are more than before; that an increase in efficiency of workers or of organization might increase profits even though laborers received a substantial increase in wages. Then, too, there is not that perfect mobility of capital and of labor assumed by the proponents of the Wages Fund Theory.

Still, holding this theory has had far-reaching consequences. If it were a true explanation of wages, then no group of laborers could through concerted action get an increase in wages except at the expense of lower wages for some other group. If there be a predetermined fund out of which all wages must be paid, and a group through organization gets an increase in wages, just so much less will be left in the fund to be divided among the other laborers; that is, they will have to accept lower wages by reason of the increase forced by others who were organized. This idea that labor unions are futile and in the end can avail nothing has come to be widely accepted. Many people have that view today. They believe that economics has demonstrated that labor unions are powerless before an economic law and therefore useless.

A little observation, however, will show that laborers have achieved abiding results through organized effort and that, too, without injury to other labor groups. With the discounting of the Wages Fund Theory, economists have sought other generalizations which would explain the facts.

One of the most important of these generalizations is the productivity theory of wages. It is pointed out that high wages do not necessarily mean high costs for labor; that well-paid employees produce so much more than those who are less efficient that it is less expensive to employ the more

efficient at high wages than to employ the less efficient at low wages. The more efficient the laborer the more he will receive for his work.

If you inquire how the efficient laborer gets high wages, the reply is that competition secures for him just what he produces. If one employer fails to pay him as much as that, another will recognize his capacity and offer him more. If an employer should make a mistake and pay a greater amount as wages than the laborer produces, it would soon be discovered, and the wages would be lowered to conform to the productivity of the particular laborer.

This theory assumes a more perfect competition than really exists, for employers will not always pay all they can. Competition by no means compels them always to do so.

An employer uses land, labor, and capital in combination. He must have some land, some capital, and the assistance of some laborers. The question is, Shall he employ more land and less capital and labor, or more capital and less land and labor, or more labor and less land and capital? He considers the productivity not of land as a whole, nor of capital as a whole, nor of labor as a whole, but of a little more or less of each. Economists therefore do not speak of "productivity" but of "marginal productivity," and say that the values of land, capital, and labor all depend on their marginal productivity.¹

Before leaving the discussion of wage theories we should mention the influence of the "standard of living" upon wages. The standard of living is an abstraction, a mental concept; it is the scale of living to which one aspires. The scale of living is made of the satisfactions one actually enjoys; the standard of living is that set of satisfactions one would enjoy if one had the means. The scale of living in a given case may be the same as the standard of living.

¹ Clay, *Economics for the General Reader* (1917), p. 316.

There are many standards of living: there is a standard for each grade of workers; there are trade standards and community standards. After a certain scale of living becomes established as customary, it is very difficult to lower wages below the requirements of that standard. If a group comes definitely to seek to rise to a higher standard of living, they will struggle for wages necessary to the realization of the coveted scale of living.

QUESTIONS

1. Formulate a statement of the Wages-Fund Theory.
2. Explain how the Wages-Fund Theory was used to oppose trade unionism.
3. Mill assumes that an increase in wages will check the accumulation of capital. Can you give the argument? What is the fallacy in the argument?

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CHAPTER XV

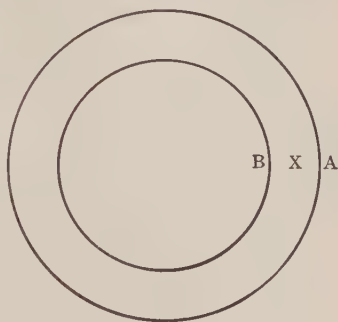
THE RESIDUAL CLAIMANTS

SECTION I. PROFITS

We have seen how it is that what is paid for the use of land and for capital and for labor is determined. After accounting for rent, for interest, and for wages, there often remains a portion of the product over and above these claims. That is, there is frequently a larger total product than is required to satisfy the claims of the landlord, the capitalist, and the laborer. After the expenses of production are paid out of the product, there is left in many instances a surplus, a residue. It remains to be seen why there should be a residue after paying rent, interest, and wages and to whom it should go.

The expenses of production are largely known before the product comes into existence, but the value of the product cannot always be foretold. Rent, interest, and wages are fixed by contract during all the processes of production. Production is carried on in anticipation of demand. What the product will bring in the market will depend upon the effective demand for that particular commodity and the available supply of it. There are many unforeseen circumstances which may affect the demand for or supply of an article and thus influence what it will bring in the market. It is altogether possible, and often happens, that the product will not sell for enough to pay the expenses of its production; so, instead of a gain, there may be a loss. It is the aim of every undertaking to produce more than is required to pay the expenses

of production. For example, let circle *B* in the accompanying diagram represent the expenses of production, and circle *A* the value of the product. Then the difference *X* between *A* and *B* represents the differential gains, or the residue above expenses of production. The size of circle *B* depends upon the current rates of rent, interest, and wages, and a few relatively less important items such as taxes, and upon the wisdom shown in adjusting and utilizing the various factors of production. This is a matter of bargaining and of management.



In two plants of equal capacity the expenses of production may be different, owing to better ability in bargaining and in making adjustments of the factors in one case than in the other. The size of circle *A*, representing the value of the product, depends upon many contingencies. If the undertaking be a form of agriculture, the amount of the product will depend upon the seasons, the abundance or absence of pests, the proper choice of fertilizers; the price that the products will bring will be affected by the quality and quantity grown the world around, facilities for transportation and storage, the condition of the money market, and means of obtaining information concerning the supply and demand. If the undertaking be some form of manufacturing, the quantity turned out will depend upon the efficiency of the labor employed and upon the forms of capital used. White men as a class turn off more work than negroes; experienced operators are much more efficient than "green hands." Various labor-saving devices are being perfected all the time. It often happens that a new invention greatly increases the output of an article. Even though a machine will reduce the

expenses of production but slightly, those who employ it successfully have to that extent an advantage over those who do not, in that for the same expense they can produce a larger quantity and perhaps better quality. The price that the product brings depends upon the quantity offered. Then, the demand for some articles is subject to great fluctuation. After the combatants make peace, manufactures of munitions have to curtail their output or suffer the consequences of oversupply. Some commodities become the fad for a season, and then the fashion suddenly changes, and the once popular cereal or soft drink or style of vehicle is no longer wanted. This is illustrated by the falling off in the demand for bicycles during the past few years.

The size of X , the difference between circles A and B , varies with the circumstances and influences that affect the expenses of production and those that affect the value of the total product. X may represent large or small gains, or A may turn out to be less than B , which was required to produce it, and X became a negative quantity and represent loss. The size of X is influenced by all those disturbing factors which enter into the determination of rates of rent, or interest, or wages; it is further affected by the conditions that fix the exchange value of the product; it may represent a gain or a loss. It is therefore very difficult to estimate what the size of X will be, and it is hard to say whether it will stand for a surplus or a deficit. Under normal conditions with good management a product can be turned out that will exchange for more in the market than the expenses of producing it. A business is regarded as normal when it is creating a reasonably greater value than is required to meet its expenses as a going concern. But there is ever present the possibility of failure and consequent loss.

The market price, or selling price, is theoretically supposed to conform to the expenses of production. But the market

price moves differently from what we should expect: first, because of friction such as is mentioned above; second, because demand and supply fail to operate in actual practice as one would expect (for the attempt to adjust the supply of the quantity wanted, with quality wanted, to the persons desiring it, at the time it is wanted, is a prodigious task); third, because the expense of getting a commodity from the actual producer to the actual consumer varies greatly and is often the result of a very roundabout and clumsy method. The chances of maladjustment of demand and supply are enormous, and the free competition relied upon by many to correct the evils of such maladjustment often exists only as a mental concept and not as a reality. If all other impediments were removed, the ignorance of men would keep it from working. After the expenses of production are estimated or known, there is no way of being sure of what the products will bring in the market. The expenses of production have to be incurred before there is any product to sell. Wages have to be paid at the current rate; materials, machines, all necessary forms of capital, have to be provided at the current rate of interest. After all this it remains to be seen whether the product will bring as much as or more or less than the expenses of production. There is always present in an undertaking the element of risk, the possibility of loss.

QUESTIONS

1. Define profits.
2. Explain how it is that profits are possible.
3. If there were a perfect adjustment of supply and demand, would there be profits? If so, would they be constant?
4. Why do we have a maladjustment of supply and demand?

SECTION 2. WHO RECEIVES PROFITS?

We may now inquire who gets the residual after satisfying the contracting claimants. Who receives the differential

gains? Evidently those who bear the losses when there are no gains; those who guarantee the payment of the rent, the interest, and the wages; those who assume the risk; those who bear the responsibilities of the undertaking.

The rewards of enterprise have been sufficient to induce men to risk possible loss in the hope of obtaining them. New lands have been settled, and all the risk from the uncertainties and misfortunes of the frontier assumed, in the hope that as the country developed the value of land would increase, and an "unearned increment" reward the foresight and patience of the pioneer. It sometimes happens that the discovery of deposits of precious metals or of coal, petroleum, or gas enriches the owner of the land beyond his fondest expectations. This exceptional gain comes to him by reason of his ownership of the soil. It may be argued that the ownership of land carries with it very little risk; that it is sure to advance in value. Yet in a new country the owner is usually called upon to share the hardships and danger of the frontier. In a well-developed and thickly populated country there is always the possibility of a redistribution of the population due to changes in means of transportation or industrial activity, and the consequent depreciation of land values. It is the prospect of the added increment to land values from the activity and progress of society in general, augmented somewhat by the possibility of a large fortune from the discovery of mineral deposits on the land, that has helped to prompt men to hasten the settlement of new continents, to crowd into the islands of the sea, to build great levees to protect the river bottoms from overflow, to drain marshes and swamps, and to turn rivers of water upon desert lands.

Men sometimes go into business, supply all the capital from their own funds, and manage the enterprise themselves. In such a case the income of the proprietors will include

interest on their capital, wages of management, as well as the reward for bearing risk. If the proceeds from the business are sufficient to keep the capital intact, pay expenses, and afford interest and wages to the owners, they may continue it, on the ground that their capital is earning as much as if they lent to another and that they are earning as much as if they were employed by someone else. Yet their business is not prosperous, for they could get as much by contracting their capital and themselves out of all risk. Again, unskilled and skilled laborers may furnish the capital and coöperate in an enterprise. In such a case the risk is distributed among all the laborers and the owners of the capital. No laborer, no one owning a part of the capital, has agreed to relinquish his claim to any differential gain above legitimate wages or interest in consideration of being assured a fixed and certain rate of payment regardless of the success or failure of the enterprise. They take the risk of getting less than current wages and interest, and are therefore entitled to whatever above such amounts may be realized from the business. Once more, the stockholders may furnish the capital and turn the business over to a hired superintendent or manager who works for a salary and so takes no risk himself. Here the owners of the capital invested in the enterprise are the risk-bearers. If they receive the current rate of interest, they are no better off as to income than if they had let their capital out on security. If the dividend declared after paying expenses and depreciation is greater than the current rate of interest, the stockholders are receiving the reward of risking their capital where it might have received less or even been destroyed. It was the hope of this reward that led them to assume the risk, make possible the enterprise, and thus contribute to the welfare and progress of their fellows.

Sometimes the risk-bearers are able to secure large rewards because of trade secrets or other advantages which their

competitors do not possess. The accumulation of an excellent list of patrons through many years of experience is an example of such an advantage. Many establishments have secret processes which they do not patent because of fear of revealing them.

The risk-takers may secure immense gains or suffer great losses from emergencies. It is estimated that the stockholders of the Baltimore and Ohio Railroad Company lost two million dollars from the Dayton flood. While the expenses had been fixed to care for a certain amount of expected business, the traffic was suddenly curtailed and receipts fell off, but the expenses continued. The employees of the road were not affected; their wages continued as before. The bondholders received their interest as before. They profited in this emergency by having previously contracted themselves out of risk. All the loss from the catastrophe fell upon the stockholders, who were bearing the risk. In a more propitious year, when the courage of the stockholders is liberally recompensed, the laborers and bondholders need not complain nor clamor for that which they agreed to forego in consideration of a regular and stipulated income.

The recent war in Europe came as unexpectedly as the proverbial thief in the night. It greatly increased the demand for food supplies. Wheat-growers suddenly found themselves receiving 50 per cent more for their grain than they had expected. The expenses of growing and harvesting it had already been incurred. The increase in price represented gain to those who owned the grain when the advance in price came. This emergency, which brought prosperity to wheat farmers, brokers, and millers, destroyed the market for cotton for the five months it was being gathered. Though the crop in 1914 was 16,000,000 bales, about 2,000,000 bales more than the crop of the preceding year, it sold for about one half of what the cotton-growers received for the

smaller crop of the year before. They, too, had incurred the expenses of making the crop before the war broke out. While they saved a little in the expense of gathering it, the wages of cotton-pickers did not fall in proportion to the decrease in the price of cotton. The wheat farmer and the cotton farmer were both risk-bearers. The same catastrophe that brought prosperity to the one brought disaster to the other.

QUESTIONS

1. What is meant by residual gains?
2. Who receives profits?
3. What facts are accepted in justification of the present distribution of profits?
4. Make a list of causes for fluctuation in profits.

SECTION 3. SOME INFLUENCES UPON THE AMOUNT OF PROFITS

The size of the residue that the risk-takers may claim is also greatly affected by monopolies and combinations. Those who take the risk of loss have no fondness for the loss. They naturally bend their efforts toward making gains as certain as possible and as large as possible. If they can secure a monopoly on their product, if they can control the prices of the materials they have to purchase and fix the price of what they have to sell, it will be possible for them to obtain the maximum surplus above the expenses of production. This desire for the benefits of monopoly control has led to pools, trusts, holding companies, and mergers in the United States. In some instances monopoly of commodities widely used has been attained, and the stockholders of such enterprises have reaped rich harvests. So strong is the desire for monopoly that the government uses it as an incentive to the exercise of inventive and creative genius by guaranteeing, for a limited period, protection in the monopoly of any new process or device to the one inventing it. He is permitted to transfer

his rights; and in many instances the purchasers of patents have made enormous sums out of their monopoly privileges.

Again, there has been much saving in recent years from large-scale production. Certain enterprises have found it advantageous to combine, though no monopoly was secured. They eliminated the wastes of competition, such as duplication of traveling salesmen, expensive advertising, and undue extension of credit to get business. By producing on a large scale they utilized by-products better, saved in cross freights, and were able to buy supplies to better advantage and bargain with laborers more successfully. The gains of such combination and large-scale production went to the stockholders of the combining companies, except where dishonesty was practiced by those in control.

While there has been much agitation and legislation provoked by monopolies and combinations, yet not all monopolies are evil, else why should the government monopolize the postal system? Public utilities, with their increasing returns, are necessarily more serviceable to society when they enjoy a monopoly. Large enterprises have frightened many people — some cannot think in terms of thousands of millions. To them mere size is a bugaboo. But growth is inevitable and great size indispensable where the commodity dealt in is used by millions of people scattered through fifty states or perhaps many nations. The risk involved may be great, and the gain tends to be in proportion to the risk.

The residual gains are often augmented by the foresight and organizing ability of the promoter of combinations. For a long time the popular conception of the value of a plant was the original cost, or the cost of reproducing it. The promoter conceived the idea of revaluing industries on the basis of their earnings. For example, if a plant cost \$100,000, or if the land, buildings, and machinery could be assembled for that amount, and its annual net earnings were \$50,000, instead

of valuing the business at \$100,000 the promoter would capitalize the earning capacity and value it at \$1,000,000, if the current rate of interest on long-time loans were 5 per cent. The promoters grasped the possibilities of this idea. They found out the earning capacity of existing and competing establishments and then estimated the possible increase in the total earnings after combination. They went among the proprietors of the competing plants, proposed combination, argued its advantages, and secured options on as favorable terms as possible. After securing the options the promoters usually found themselves unable to finance their proposition, so they would appeal to bankers to underwrite the securities of the new corporation. Since the underwriters very definitely assumed a large share of the risk, and because they were essential to the success of the project, they were able to secure a very liberal proportion of the commissions.

There are instances of abuses, when those entitled to dividends do not receive them. A few individuals may buy up a majority of the voting stock of a corporation and use their advantage to defraud the minority. This is sometimes done by voting large salaries to the majority stockholders, and thus consuming the earnings of the company without rendering any service in lieu of the expenditures. Again, the stockholders of some companies have received large dividends because their boards of directors were clever enough to secure rebates and drawbacks from railroads, or extensive credit that competitors could not secure, or because competitors were driven from the field by discrimination in price-cutting. The extent of these evils is often beyond what one would suppose, but usually such abuses can be suppressed. However, in so far as they exist, they result in shifting shares of the product from those entitled to them to those who should not have them. It is in this field that the state can be of service, in preventing fraud, injustice, and oppression.

In an effort to render such service our Federal government has enacted some important laws. Among these are (1) the Sherman Antitrust Act, which was passed in July, 1890. It declared illegal every contract, combination, or conspiracy in restraint of interstate or foreign commerce. It was directed against any attempt at monopoly, and provided a penalty for its violation. In 1894 the Wilson Tariff Bill made an addition to the Sherman Act, forbidding any restraint in lawful trade designed to increase the price of any article imported into the United States. (2) In 1903 a law was passed providing for a Bureau of Corporations, which was to investigate the affairs of industrial corporations engaged in interstate and foreign trade, the President of the United States to decide what part of the information thus obtained should be made public. (3) The act providing for the opening and operation of the Panama Canal, passed in August, 1912, contained a clause forbidding the use of the canal to any ship owned or controlled by any person or company doing business in violation of the Sherman Act. (4) The Trade Commission Act, passed in September, 1914, provided for a commission of five members appointed by the President, with the advice and consent of the Senate. These commissioners were to receive \$10,000 a year each, and were clothed with authority to make investigations, and to prevent unfair methods of competition in commerce. (5) The Clayton Act was passed in October, 1914. This is a rather sweeping measure, which, among other things, prohibits local price discriminations, tying contracts, certain holding companies, and interlocking directorates. (6) The Webb-Pomerene bill became law in April, 1918, and was enacted to exempt from the antitrust laws those associations formed for the sole purpose of engaging in export trade and actually engaged solely in such export trade. The problem of regulating large organizations without hampering their usefulness is a very modern one.

QUESTIONS

1. Show how the desire for profits leads to attempts at monopoly and to combination.
2. Why is large-scale production expected to yield increased profits? Why are these expectations sometimes not realized?
3. Illustrate how profits may be affected by accident, by luck, by ability in making forecasts.
4. Why does common stock fluctuate in price? What may be done about it? Should there be state regulation of security issues? Why?

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CHAPTER XVI

LABOR PROBLEMS

SECTION I. SOME SOURCES OF LABOR PROBLEMS

The great improvements in machinery, in the subdivision of labor, in organization for production which have characterized the past century and a half brought with them new problems. These problems have been added to and aggravated by the dissatisfaction on the part of many working-people with the way in which goods have been distributed.

The new inventions made it economical to assemble under one roof many machines the power for which would be furnished by an engine built as a part of the plant. This arrangement required that many people work beneath the same roof. They would have to live near the factory or mill in which they would operate or tend machines. The work was taken from the homes of the craftsmen and removed to the factories. The people followed the work from their homes to the factories. This, of course, was necessary and was done because goods could be produced less expensively and more abundantly by the new processes.

But certain results followed the introduction of the new machinery which contributed to the creation of grave labor problems. Among these results were the following:

1. The relationship between employers and employees became less personal. When manufacturing was in the handicraft stage the master craftsman worked alongside the journeyman and apprentices. The employees often ate at the table with the family of the employer. A journeyman employee not infrequently married the daughter of a master

craftsman. When a journeyman or an apprentice became ill or sustained an injury, the employing master craftsman, and perhaps members of his family as well, rendered sympathetic assistance. These personal relationships developed because the ordinary employer had only a few employees, who worked under his supervision, if not with him. In a great factory it is difficult, if not impossible, for employers to know all the employees. Moreover, the employer is often a corporation. A corporation is itself an impersonal association. In the modern establishment a labor manager or a foreman is employed by the company, and it is his duty to engage the employees. He naturally wants to make a good record, and often seeks to keep down expenses by getting the employees for as low wages as possible. The relation between the owners of a modern business and the people employed in it tends to become impersonal.

2. In determining the terms of the wage contract the individual laborer became relatively weaker as a bargainer and the employer became relatively stronger as a bargainer. The employing firm or company would make contracts with many individual laborers. One more or less would not make much difference. But the individual laborer would have to get a job or go hungry, and perhaps permit his family to suffer for lack of necessities. Then, too, a big firm or company would have much information concerning the labor market which a laborer could not get. The company could advertise in many communities, arrange with railroads and steamship lines for cheap transportation, and bring to its gates many applicants competing for work. The ordinary workingman would have no way of causing employers to compete for his services.

3. The new arrangements greatly affected the security of the workingman. Before the Industrial Revolution, which followed the widening of the market, the greater subdivision

of labor, and the use of specialized machinery, production was in response to a fairly well-known demand for the goods. Supply could be very well adjusted to the demand. There was room in each craft for a certain number of workers, their wages were rather steady over a period of years, and their employment was pretty sure. With production in anticipation of demand a perfect adjustment of supply and demand became much more difficult. Mistakes were possible. The demand might be overestimated or it might become less after a process of supplying it had been put into operation. From overproduction of some line of goods a glut of the market would result. The factories would have to curtail output or perhaps even close down. Employees who had settled down around the establishment would be laid off rather suddenly. Apprentices would not be offered contracts assuring them of support during the period of apprenticeship. Journeymen, as a rule, would find no sympathetic employer who, knowing them personally, would help them to make some shift to tide over the depression. The whole burden of unemployment, with all the possible want and misery, would have to be borne by the employees. Fear of unemployment came to abide with millions of working-people.

Again, the real wages of laborers have fluctuated greatly from time to time. The value of money has not been constant. Many forces have combined to force prices up or down. Historical studies show that during a period of rising prices wages are not increased as rapidly as prices advance. While employment may be fairly steady, owing to the demand for labor during a time of rising prices, the purchasing power of the wages received is shrinking faster than additions are made to the amount of wages received. During a period of falling prices wages do not fall as rapidly as do prices — the laborers are then in an advantageous position if they can only keep employed; but during a time of falling

prices the demand for labor is not so strong, and there is much unemployment and irregularity of employment.

Then, too, there was insecurity as to health. The long hours of the handicraft stage were brought over into the period of improved processes. The craftsman worked long hours, but not under pressure. The work was done at home. There were interruptions. The family was at hand with demands as well as with assistance. But working in a factory does not permit stopping to run an errand for the housewife. The worker is operating or tending a machine. He must be on duty while the machine is going. His pace is set by the machine. If he gets tired he cannot quit until the whistle blows. The work is away from home, and the time consumed in going to and from work is in effect added to the time the worker's employment takes him away from his family. Shamefully long hours were tolerated for decades. Over-fatigue and overstrain impaired the health of many a worker, and when health was gone he had to quit with no means of providing for himself and family.

Unsanitary conditions were long permitted in many establishments, conditions which made for the ill health of the workers. And to the worker fell the expense of doctors' treatment and the risk of impaired earning power. From the handicraft stage there was brought over into our time of improved processes the common-law rule of assumed risk; that is, that the employee is supposed to have intelligence, to be most interested in his personal welfare, and that if he works in a dangerous place or with a dangerous machine and is injured, it is his own fault, for he did not have to take the job. As a matter of fact the individual laborer often has little choice as to whether he will accept or refuse a job. Necessity often drives him to seek and to take whatever he can find. Moreover, while this rule was fair in the handicraft stage, when tools and machines were simple and the journeyman knew

as much about their use as the master, in recent times processes are so involved, machines so complex, dangers so subtle, that the average man is not in a position to know the peril of unguarded machinery, of certain processes, and of some conditions. But if such a man were injured, he was without recourse and would have to bear individually the entire burden imposed by the injury, or, rather, he and his family would have to bear such burdens, aided only by the relief of fitful and unsystematic charity.

Finally, when old and worn out, the laborer would have to quit; perhaps he might be asked to quit as soon as he became unable to keep the pace set for younger men. Even before fifty, men find themselves no longer wanted. The old or worn out laborer must shift for himself or become a charge upon his children. The history of a hundred and fifty years shows that very few wage-earners save enough to keep them in their old age. Up to the present the average wage-earner has been able to look with certainty to no provision for old age except the poorhouse, which he can enter only at the sacrifice of his self-respect.

While the new processes brought goods in greater variety and abundance, the laborer became less certain of a share of these goods than he was in the days of simpler processes and when goods were less plentiful. With greater abundance of satisfactions available to society, the position of the laborer became insecure — insecure as to employment, amount of wages, health, life, maintenance in sickness, disability, and old age.

4. The new machines do not always require muscular strength to tend them. Many processes in our mills and shops can be carried on with the aid of the relatively small strength of women or even with the smaller strength of little children. Wage-earners have not always shown an intelligent appreciation of the dangers of gainful employment of

their children. Millions of women and children have come to be employed away from home. They are notoriously weak bargainers. Their wages are usually low. Questions of hours, speed of work, sanitary conditions, general environment, become of great social importance when applied to working women and children.

These are some of the results of the transfer from the less productive handicraft processes to our improved processes. From these results we have many problems, which we are pleased to designate as labor problems. In considering the problems, we should not lose sight of the fact that the improved processes make possible improved conditions and greater opportunities even for those who suffer during the period of adjustment to new conditions.

QUESTIONS

1. Mention some changes involved in the Industrial Revolution.
2. Mention some conditions following the introduction of improved machinery which gave rise to labor problems.
3. Is the impersonal relationship of employer and employee which is common in modern industry desirable? What are its advantages? its disadvantages? Can anything be done about it?
4. How have modern changes in our business organization tended to weaken the individual laborer and to strengthen the employer as a bargainer?
5. *a.* Make a list of the ways in which the improvements in the efficiency of our productive processes have been attended by insecurity on the part of the laborer.
- b.* What are the economic consequences of this insecurity? the social consequences?
- c.* Is this insecurity inevitable or may it be removed?
6. Why are women and children relatively weak in bargaining for wages?
7. What are some of the problems which have grown out of the gainful employment of women and children?
8. What is meant by the phrase "labor problems"?

SECTION 2. PROPOSALS FOR THE SOLUTION OF LABOR PROBLEMS

Such problems as those indicated in the foregoing section certainly call for solution. Let us now turn to some proposals for the solution of labor problems.

The first is *laissez faire*; that is, "let alone," "let matters take their course." Some hold that if no effort is made to solve the problems, they will in time be remedied through the natural operation of economic forces, that competition will serve to eliminate employers who do not treat their employees with fair consideration, because the better employees will leave them for more considerate employers, and that these employers having the choicest workmen will outstrip their competitors and either drive them from business or force them to mend their ways.

But experience has shown that competition does not work with perfection. There are too many disturbing influences. Ignorance of the facts is one of the greatest hindrances to the proper working of competition. In a struggle between individuals who happen to be in a locality for the opportunities for employment afforded in that locality, the emphasis is likely to be put upon standards of living, and in such a competition those with the lowest scale of living will get the jobs. When there is little restriction upon foreign immigration and the competition for American jobs becomes practically worldwide, it becomes increasingly difficult to maintain high standards of living. The native American worker is constantly threatened by the ignorant, want-driven immigrant, who is glad to underbid the American in order to get the job.

Competition between individual laborers has often become cutthroat in its nature. Competition has not been adequate to correct all the mistakes that arise from the impersonal relations of employer and employees. Competition has not

brought security to the workingman. Even the most efficient are not secured against the perils of unemployment, of sickness, of accident, of old age. Unregulated competition has rather aggravated the problems growing out of the employment of women and children. After several generations of experience it is clear that we cannot trust to the blind operation of unconscious processes to solve our labor problems.

Another solution that has been proposed is scientific management. "Scientific management is a system devised by industrial engineers for the purpose of serving the common interests of employers, workmen, and society at large."¹ Some of the claims of industrial engineers for their systems are that "scientific management guards the workers against overspeeding and exhaustion nervously and physically (1) by substituting exact knowledge for guesswork in the setting of the task; (2) by careful studies of fatigue and the setting of the task on the basis of a large number of performances by men of different capacities and with due and scientific allowance for the human factor and legitimate delays."² Again, it is said that "scientific management insures just treatment of individual workers (1) by substituting the rule of law for arbitrary discussion of foremen, employers, and unions; (2) by giving the workmen in the end equal voice with the employer."³

Scientific management has much to offer, especially toward a further increase of efficiency in production. Those who have worked out the ideas of scientific management and who advocate them have not been successful in enlisting the support of laboring people. Many employers have seen the advantages of scientific management, have sought to apply it, and have found their efforts in some measure thwarted by the opposition of their employees. Scientific management has in it so much that is useful and beneficial that it

¹ Hoxie, *Trade Unionism*, p. 299, note 3.

² *Ibid.*

³ *Ibid.*

will in all probability come to be applied, and the opposition of employees to it will be overcome. But after its triumph and after it has been successfully and universally applied, many of the labor problems will remain unsolved.

A third proposal is socialism. This is offered with much zeal by its advocates as the one panacea for the ills of society. Socialists of all countries hold more or less strongly the following doctrines :

1. The ways by which people get their living determine their whole political, social, intellectual, legal, moral, and even religious life.

2. The exchange value of commodities depends upon the amount of socially necessary labor — the time required to produce them.

3. Although the working class create all wealth, their wages tend to equal the bare cost of living. As the rich grow richer the poor grow poorer and ever sink deeper in the slough of pauperism.

4. The capitalists take in the form of rent, interest, and profits the greater part of the values created by the working class.

5. The introduction of labor-saving machines and improved methods of production creates a vast reserve army of the unemployed and impoverishes the working class, while the capitalists accumulate goods which they can neither use nor sell.

6. The continuous improvement of machinery and methods of production gives rise to larger and larger business organizations and concentrates wealth in the hands of a few.

7. As wealth becomes concentrated in the hands of a few magnates, the small manufacturers, merchants, craftsmen, and farmers sink into the working class.

8. Eventually there will be but two classes: capitalists and laborers, but the laborers, being the majority, will seize the political power.

9. After taking the political power the workers will abolish capitalism by doing away with private ownership of capital. They will organize industry on the basis of a common ownership and management of the means of production. Poverty will then disappear because goods will be so distributed as to remove the inequalities which, socialists say, cause poverty.

10. After socialism has been established, human character will adapt itself to the new environment; most men will be industrious; an era of peace, prosperity, and happiness will become permanent.

11. The social revolution is coming, and nothing can prevent it.

These are the principal doctrines of socialism. As much as we may admire the beauty of the idealism of some socialists; as much as we may desire to see the realization of the human progress of which they talk and dream; as charmed as we may be by the unselfishness, the devotion, and the admirable qualities of character of many who teach socialism, — we must as practical people face reality. Attempts to realize the dreams of socialists thus far have been disappointing. Except in Russia experiments in socialism have been on a small scale. But such experiments as have been made rather confirm the misgivings of those who criticize socialism. At any rate most careful observers do not believe that socialism can be taken seriously as a program for the solution of labor problems.

A fourth proposal for the solution of labor problems is the organization of laborers. A fifth is labor legislation. These last two proposals will be discussed in the following sections.

QUESTIONS

1. Name five proposals for the solution of labor problems.
2. What is meant by *laissez faire*? What do you think of this as a solution of labor problems?

3. Show wherein competition has failed to eliminate the causes of labor problems.

4. What do you understand by scientific management? Can it eliminate the sources of labor troubles?

5. What is socialism? What does it propose? Are its doctrines well founded?

6. What would be the effects upon labor problems of the adoption of socialism?

SECTION 3. OUTLINE OF HISTORY OF ORGANIZED LABOR IN THE UNITED STATES

Laborers themselves have undertaken to solve their problems through organized effort. The history of organized labor in the United States may be divided into six periods:

1. *The period of the beginnings, 1785-1827.* During this time a few local craft unions were organized. They were limited to skilled workmen, such as shoemakers and carpenters.

2. *The awakening, 1827-1837.* The first five years of this period were characterized by great political activity. The workingmen had recently been enfranchised. They went into politics to redress their grievances, but with little success. Imprisonment for debt was abolished in most of the states, and some laws were enacted to insure the payment of wages after they were earned. Great material prosperity ushered in the thirties and continued for several years. Canals and railroads were being built, new lands were being settled and developed rapidly, new industries were being set up, shipping and foreign commerce were prosperous. There was a great demand for laborers. Prices were rising, and wages were following after prices.

By 1833 laborers turned from political activity to organization. Many unions were formed. These were organized for the most part by crafts. The local unions in the same city

affiliated together in common councils. State conferences were called, and national unions were organized. Some three hundred thousand laborers belonged to unions by 1836. Then came the panic of 1837. Sudden, severe, disastrous, it brought ruin to labor organizations. Not many survived the panic and the depression which followed it.

3. *The humanitarian period, 1837-1850.* After the collapse of labor organizations following the panic of 1837, laborers again turned to politics. During the forties there was much discussion of idealistic and visionary schemes for solving labor problems along with all the ills of society. Robert Owen, the radical capitalist from England, toured the country. Horace Greeley lent the powerful support of the New York *Tribune* to the discussion of various schemes and projects. But little came of so much talk. The forties wore away, the country again became prosperous, the abolition movement enlisted the agitators. All this brought a new period in labor history.

4. *Safe and sane unionism, 1850-1861.* As laborers had done before the panic of 1837, so in the fat years of the fifties they turned to organization along craft lines and to pressing claims of a purely business character. Several national unions were organized. Labor unions were becoming more effective than ever before. Then came the Civil War with its disturbing and far-reaching effects.

5. *The ferment, 1861-1886.* For a quarter-century labor organizations were in a ferment. The war brought difficulties, among which was a lessening of the labor supply by raising big armies. War industries began to thrive, prices to rise, and wages to follow after prices. Labor organizations were strengthened; new ones were formed. Then came the period of reconstruction, the disastrous panic of 1873, followed by years of financial depression. By 1879 the country was again entering upon prosperity. This was interrupted by a

sharp panic in 1884. This was soon over, and prosperity continued for several years. Labor organizations flourished during the years of prosperity and went to pieces before the adversities of hard years. Organizations disintegrated, to be succeeded by new ones.

The most interesting story of this period of labor history is the account of the rise of the Knights of Labor. Organized in 1869 by Uriah Stevens as a secret society, the Knights of Labor was for several years an unknown and very insignificant organization. In time some of the secrecy was abandoned, ultimately all of it, and the Knights began to make an effective appeal to the workers. The local assemblies were often thrown open to any workingman who might join, regardless of his craft. By 1886 the Knights engaged in a series of unsuccessful strikes and the organization became involved in controversies with the young and growing American Federation of Labor. Internal dissension developed among important officers. The Knights rapidly lost in numbers and in importance after 1886.

6. *The period of business unionism, 1886-1921.* For thirty-five years the American Federation of Labor has represented the dominant ideals of American trade unionism. These have been safe and sane business aims. The aims of the organizations affiliated with the A. F. of L. have in the main been economic. "To get more now" is the way their aims have been summed up.

QUESTIONS

1. Outline the history of organized labor in America.
2. What was accomplished during the period of the "beginnings"?
3. What happened during the period of the awakening? How does the second half of that period differ from the first part? How do you explain the rapid growth of trade unions from 1833-1836?

4. Explain the "humanitarian" period.
5. Why did we have a period of safe and sane unions during the fifties of the past century?
6. Describe the period of "ferment." Is it well named? What great organization rose to commanding importance toward the close of this period?
7. What organization has dominated the period of business unionism?

SECTION 4. TYPES OF LABOR UNIONS

At the close of section 3 of this chapter reference was made to business unionism. We should here inquire what is meant by business unionism. In fact we should learn the different types of trade unionism. Professor Hoxie¹ has made a useful classification of the types of unionism. He classifies unions first according to structure. This classification of labor unions according to their structure is as follows: (1) craft unions; (2) compound-craft unions; (3) industrial unions; (4) labor unions.

The craft union is one which is made up of the members of a certain trade. In former times the word "craft" was used instead of our word "trade" when speaking of one's occupation. A craft union is a labor organization which admits to its membership none but those working at the trade or craft of the other members. A painters' union is a craft union because none but painters may join it; a barbers' union is a craft union because it exists for the benefit of barbers, and no others may join or share the privileges of the organization.

A compound-craft union is one that admits to its membership members of two or more different crafts. For example, the plumbers and the steamfitters belong to the same union. In their organization are members from two crafts. Some are plumbers, others are steamfitters. Theirs is a compound-craft union.

¹ Trade Unionism, chaps. ii, iii.

An industrial union is a labor organization which admits to its membership any laborer employed in a given industry regardless of his craft. The organization is by industry and not by craft. The United Mine Workers is an industrial union, for anyone working in the mining industry as a wage-earner, whether he be a blacksmith or a blaster, may become a member. A miner who goes into the pit may join; the man who runs the elevator in the shaft may become a member; the blacksmith who sharpens the miners' tools is eligible. Every laborer in the particular industry is expected to join the union.

A labor union is one which admits to membership any wage-earner without regard to his craft or the industry in which he is employed. Many local assemblies of the old Knights of Labor were of this type, and admitted any wage-earner. The American Federation of Labor promotes the interests of craft and industrial unions, but if an organizer cannot find enough in one craft or in one industry who will unite to form a local union, he may organize what is called a federal union. A federal union is one that admits any wage-earner. It is a recruiting station for the established organizations. As soon as enough of any one craft are brought into a federal union, they are urged to form a local according to their craft and to get a charter from the national organization of the craft. For example, if an organizer sent out by the American Federation of Labor should come to your town and not find enough carpenters to form a carpenters' union, nor enough plasterers to organize a union of plasterers, and so on through the list of trades, he might organize a federal union made up of a few carpenters, plasterers, brickmasons, barbers, printers, and letter carriers. After a few months it might be found that there were enough carpenters to organize a local of their own. Then the carpenters would be encouraged to withdraw from the federal union and organize

as a carpenters' local union, and get a charter from their international.¹

All these types are represented in the American Federation of Labor. Among the more than thirty thousand local unions belonging to the great national organizations that compose the American Federation of Labor are craft unions, compound-craft unions, industrial unions, and labor unions.

Hoxie makes a second classification of unions according to what he calls their function; that is to say, their programs. This classification of unions according to their programs is as follows: (1) business unions; (2) uplift unions; (3) revolutionary unions; (4) predatory unions; (5) dependent unions.

A business union is one that has as its program the increase of wages, the shortening of the workday, the improvement of conditions. The aims of the business type of union are economic. The business union strives to improve the material income of its members. The building-trade unions are examples.

The uplift type of union has much in its program which looks to an improvement of the general welfare. The aims of the uplift union are to educate, to improve the morals, and to minister to the spiritual needs of its members, of their families, and of others also. The Knights of Labor illustrate this type.

The revolutionary union has for its program the change of political and social institutions. It is most concerned with abolishing private property, competition, national governments as now organized. The International Workers of the World² are an example of this type. The Amalgamated

¹ A union having locals both in the United States and Canada is called an international; if the local unions of the organization are confined to the United States, it is called a national.

² The International Workers of the World are commonly spoken of as the I. W. W.

Clothing Workers too, as well as some others, have a socialistic program.

The predatory type aims at getting as much as possible from the employer and giving him as little as possible in return. Occasionally unions drunk with power send their agents to employers and dictate the terms of a contract. Again, unions are sometimes opposed by their employers and are driven to the wall. In desperation they resort to guerilla tactics, practice sabotage, strike on the job, willfully injure the property of the employer. Such was the program of the Structural Ironworkers under the leadership of the McNamaras when they carried on a secret campaign of dynamiting bridges and buildings as a part of their struggle with the National Erectors' Association (their employers).

Dependent unions are those which rely upon the favor and patronage of employers to keep them alive, or else depend upon the use of labels to mark the goods they help to turn out. If consumers recognize the union label and call for goods bearing that label, that strengthens the union using the label.

The American Federation of Labor is composed of organizations of all these different types. The majority of the national organizations affiliated with the American Federation of Labor are of the business type. Some are uplift, a few are revolutionary, some are predatory at times, a number are dependent upon labels. Those fostered by and dependent upon the initiative of employers are not represented in the American Federation of Labor.

QUESTIONS

1. Classify unions according to structure; according to program.
2. Explain what is meant by each structural type and illustrate from contemporary organizations.

3. Explain what is meant by each functional type and give examples from existing unions.

4. Among the A. F. of L. organizations what structural type is most common? what functional type?

SECTION 5. THE AMERICAN FEDERATION OF LABOR

Since the American Federation of Labor is constituted by the majority of the important labor organizations, and since these organizations are of the types that dominate the American labor movement, we should at this point describe the organization of the American Federation of Labor.

As its name implies, the American Federation of Labor is a federation of other organizations. It is made up of representatives from more than a hundred national and international unions. A national union is one that has local unions in the cities and towns of the United States only; an international union has locals in Canada and sometimes in Mexico, as well as in the United States. Since the majority of American labor organizations have locals in Canada, they are called international unions. A national or international union has a president, a secretary, a treasurer, and usually some vice presidents who are elected by a convention made up of delegates from the locals, or else by a referendum vote of the rank and file who make up the locals. These national officers compose the executive committees, and usually have large powers delegated to them by a constitution. The constitution is adopted and amended from time to time by the general convention of delegates from the locals, or by a referendum vote. The executive committee grants charters to new locals and collects dues for the support of the general work. The general work fostered and requiring financial support is (1) organization. Organizers are appointed and paid by the executive committee to go into communities and form locals of the people who are eligible for membership. (2) Benefit funds.

These vary from one organization to another. They sometimes include burial funds, sick benefits, and strike benefits. The strike benefits are dispensed by the executive committee. In order to share in that fund a local must get the executive committee to approve its strike. Most national organizations forbid a strike until the matter has been gone into by the general officers. The executive committee also assists in drawing up working agreements with employers. The general president is often a well-paid official, and gives all his time to the duties of his office.

All authority which the American Federation of Labor possesses resides in the convention, which meets annually. The convention of the American Federation of Labor usually is in session for two weeks. The convention is composed of delegates from the member nationals and internationals, from state federations of labor, from city federations, and from the local federal unions. Each national and international union is represented as follows: one delegate for 4000 members or less; two delegates for 4000 members or more up to 8000; three delegates for 8000 members or more up to 16,000; four delegates for 16,000 members or more up to 32,000; five delegates for 32,000 members or more up to 64,000; and so on. Each state federation, each city federation, each local federal union, is entitled to one delegate. From this it is clear that the convention may be controlled by the big national and international organizations when they act together. But the big organizations are by no means always united; they often differ, and representatives of small organizations come to exercise great influence in the convention.

The convention elects a president, a secretary, a treasurer, and eight vice presidents. These eleven officers constitute the executive committee, which has charge of the work of the A. F. of L. between conventions.

The convention decides upon a legislative program. The executive committee seeks to get laws through Congress and the state legislatures in obedience to this program. The executive committee appoints organizers and spends much effort and money in strengthening existing organizations and in forming new ones. Disputes between national organizations are often brought before the executive committee of the A. F. of L., and the committee seeks to smooth out such differences. The executive committee also looks after publicity and seeks to inform laborers as to their best interests and to educate the public to a sympathetic attitude toward labor organizations.

The American Federation of Labor has no authority over strikes. It cannot call a strike except for one of its little recruiting stations, which are called federal unions and which were described above. Each national and international organization decides upon its own policies, and the individual national alone has the power to call its members to strike or to abandon a strike. However, the executive committee of the A. F. of L. and the convention, when in session, may lend its moral support or refuse to extend the favor of its influence to the action of a national or international.

About four fifths of the organized workers are in unions belonging to the American Federation of Labor. About one fifth are outside, the most important of these being the railroad brotherhoods, the Amalgamated Clothing Workers, and the I. W. W. The railroad brotherhoods are business unions and often act in perfect harmony with the A. F. of L. The Amalgamated Clothing Workers and, more particularly, the I. W. W. make war upon the A. F. of L.

The membership of labor unions has been increasing since the first two decades of the twentieth century. The growth was very rapid during the years of the World War. In 1920 nearly half of the men and women working in transportation,

mining, and manufacturing in the United States were organized. The depression setting in during the latter part of 1920 affected the unions. Industries cut down employment, foreign immigrants streamed through our ports, employers organized vigorous open-shop associations to fight the unions. These and other influences bore heavily upon labor organizations. Many members quit paying dues, organizers found their work increasingly difficult, many employers refused to continue or renew expiring working agreements, state legislatures and Congress appeared indifferent to the representations of union committees; on the whole, organized labor found itself on the defensive.

QUESTIONS

1. What is the American Federation of Labor? Describe its organization.
2. What are the duties of the executive committee of the A. F. of L.? Who compose that committee?
3. What authority has the A. F. of L.?
4. To what extent is American labor organized?
5. What has been the effect of the depression in 1920 upon organized labor?

SECTION 6. BUSINESS UNIONISM

Since business unionism is the dominant type in America let us inquire as to its assumptions, economic aims, and methods.

The four most fundamental assumptions behind labor organizations of the business type are (1) once a laborer, always a laborer; (2) as things go, the interests of the employers and of the workers are usually opposed; (3) the wages received and the conditions under which work is performed are the result of the relative bargaining strength of employers and employees; (4) the bargaining power of labor is strengthened through organization.

These assumptions are expressed in the speeches and the writings of labor leaders and in the preambles of constitutions of labor organizations. They admit that a few laborers rise from the ranks to become employers, but they maintain that those things happen in small establishments and not among the great companies employing thousands of men. Labor organizations take for granted all four of these propositions.

The economic aims of unionism of the business type are in the main (1) to prevent the lowering of wages under any circumstances and, if possible, to get higher wages; (2) to prevent any increase in the number of hours of the working-day and, if at all possible, to reduce them at least to eight; (3) to increase security of employment and to make employment more regular and continuous; (4) to protect health, life, and limb.

Labor unions have many aims that are not economic. Many unions even of the business type lay great emphasis upon demands other than the economic ones.

The methods used in the attempts to realize these aims have grown out of experience. The chief method is that of collective bargaining between an employer or group of employers and the representative of the labor unions. Where such agreements are arrived at we say that there has been collective bargaining. A closed shop bargains with a labor organization as represented by its agents. An open shop insists upon bargaining with its employees individually and refuses to deal with them as an organization.

There is from time to time much talk about the "open" shop and the "closed" shop. Communities sometimes become divided upon the issue. At present we have in the United States the following types of shops:

1. Nonunion shops, where the employees are not organized, as retail stores.

2. Nonunion shops closed to union men; that is, places which will not employ a member of a labor union.

3. Nonunion shops, where members of labor unions may be employed, but without any reference to their bargaining as a group. Such shops tolerate the existence of labor organizations but refuse to deal with them or to permit them to function.

4. The open shop, where unions are recognized and where there is collective bargaining with them, but where nonunion men also work and make their own individual bargains, as on the railroads.

5. The preferential shop, which gives preference in employing men to members of labor unions, and which in slack seasons lays off the nonunion employees first.

6. The union, or so-called closed shop, where none but members of the unions are permitted to work because of the direct action of members of unions in keeping non-union men away.

7. The union or so-called closed shop, where the employer enters into an agreement to employ none but members of trade unions. Some organizations, as among the building-trades, do not permit their members to work beside non-union men.

QUESTIONS

1. State the assumptions of business unions.
2. State the aims of unionism.
3. What methods are used to get the results derived by organized labor? What is collective bargaining?
4. What is an "open shop"? a "closed shop"? What do we really have in America?

SECTION 7. LABOR LEGISLATION

We cannot in an elementary course which undertakes to make a survey of the field of economics go very much into

such a subject as labor legislation. At best we can only indicate the scope of labor legislation and some of the questions with which it deals.

Labor laws fall roughly into two classes: first, those which deal with the laborer as an individual bargainer; and, second, those laws which apply to groups of working-people as collective bargainers. Some of the laws passed to protect the laborer as an individual bargainer have to do with his wages. There are laws making wages exempt from judgments obtained in the courts against a laborer because of his debts. The laws have repealed the old custom of imprisonment for debts. Kentucky in 1821 was the first American state to enact a statute abolishing imprisonment for debt. Then the legislature went further and provided that a laborer's wages could not be taken from him to satisfy a debt. In many states the law requires that wages be paid once a week, and that they be paid in lawful money. This is to prevent payment in claim checks on stores operated by the company, thus compelling the laborer to buy his supplies at a certain place regardless of his wishes. Other laws require that the wages be paid at the place of employment and forbid payments in such places as saloons. This is to protect laborers against employers who might be interested in some saloon, and require their employees to go there to get their pay. Moreover, laws provide for what is called a "mechanic's lien"; that is, until his wages are paid the law gives the laborer a claim upon the property which labor has helped to create. If men are employed to build a house, the law provides that they have a lien upon the house for their wages, and if their wages are not paid, they may take the house and sell it and from the proceeds take their wages.

There are other laws regulating the practice of some employers of making deductions from the wages of their employees for damage to materials or tools or as fines for tardiness.

Other laws are designed to protect the laborer from certain types of competition, as convict labor, Chinese and Japanese labor, and illiterate immigrants from Europe and Latin America.

A second group of laws deal with collective bargaining. Labor organizations are wont to use the strike, the boycott, and picketing as weapons or aids in their efforts to obtain collectively a favorable bargain with employers. A strike is stoppage of work by a group of laborers who expect to return after their absence from their places has influenced their employers to grant what they want in the way of higher wages, shorter hours, and so on. A strike is lawful unless it be for an unlawful purpose. What makes a strike unlawful varies from one state to another. In most states a sympathetic strike which is called to aid another organization is unlawful. California, however, holds all strikes to be lawful.

The boycott is organized refusal to deal with a house which has given offense. Unfair lists, as they are called, — that is, lists of firms regarded as unfair in their treatment of laborers, especially of labor organizations, — are sometimes printed in labor papers and announced on bulletin boards in their places of meeting. In a very few states (for example, California) boycotting is legalized. Nearly all the states hold it to be unlawful.

Picketing is the placing of sentinels or watchmen at or near the approaches to an establishment with which a labor organization is having a dispute. The duties of the pickets are to dissuade other persons from accepting employment in the place of strikers. They are supposed to state the facts, and by peaceful means seek to keep people from going to work as strike-breakers or from trading with a firm regarded as unfair in its treatment of organized labor. If pickets use intimidation, their acts are always regarded as unlawful; if their methods are peaceful some states hold that picketing

is permissible, though California courts hold that picketing always amounts to intimidation and is therefore unlawful.

There are many other labor laws: those providing for the payment of minimum wages to women and to minors; those regulating hours — fixing maximum hours for women, for children, and for men in certain employments, as on the railroad trains, in mines, and in factories of certain types. Then there are laws providing for protection of life and of health and those making possible social insurance against accident, sickness, old age, and invalidity. There is agitation for laws providing insurance against unemployment. We have legislation regulating private employment agencies, providing for public employment agencies, and looking to the distribution of public work so that most of it may be done in slack seasons and dull times.

These illustrations are sufficient to indicate the many subjects dealt with by labor laws, and the rapidly increasing amount and importance of such legislation.¹

QUESTIONS

1. How may labor laws be classified?
2. Make a list of subjects treated by laws enacted to aid the individual laborers.
3. What weapons are often employed by labor unions? What is the attitude of courts and legislatures toward these weapons?
4. Make a list of all the subjects you can think of which are treated by existing labor laws.
5. Shall we have more or less labor legislation in the future?
6. Do you think of any labor laws which should be passed in your state? Why do you think as you do?

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CHAPTER XVII

FARM LABOR

SECTION I. TYPES OF FARM LABORERS

Farm-labor conditions present different aspects in different sections of the country. The farm-labor situation is determined by the nature of crop production, prevailing types of farm organization, and general economic and social conditions that prevail. The cultivation of small grain under a system of capitalistic farming, in a section rather remote from a source of labor supply, presents a farm-labor problem quite different from that where the system of cultivation is based on diversified farming and the average acreage in each farm is relatively small.

Roughly speaking farm labor may be classified as follows:

1. *The individual farm laborer who is temporarily a member of the farmer's family.* When this system of farm labor is practiced the laborer eats at the family table, puts his soiled clothes in the family wash, and shares the social advantages of the home as a member of the family. The farm laborer is a young man who expects to become a farm-owner in time. He is regarded as a social equal of the family with whom he lives, and there is no class distinction to mar the feeling of comradeship. The farm laborer under these conditions is usually personally interested in the farm enterprise and renders efficient service for the wage he receives. This type of farm labor is frequently found on the general farm, where the farm-owner cultivates his own land and the standards of living, as well as the methods of cultivation, are high.

2. *Transient, seasonal farm labor.* This type of labor is the result of specialized forms of agricultural production. Migratory labor grows out of specialized agricultural production. Along the Atlantic seaboard, where farmers have specialized in trucking and fruit-growing to supply the metropolitan areas, a transient, seasonal labor supply is necessary to gather peas, beans, corn, tomatoes, strawberries, raspberries, and the like for the city markets in that vicinity. Each summer the grainfields of the Middle West demand thousands of transient men during the harvesting season. In the United States wheat is raised over wide areas. The "grain belt" extends from northern Texas over a wide area into Canada. The harvest season begins in Texas about the first of June and moves slowly northward, reaching Canada in the late summer. The period of harvesting is relatively short, and the farmer needs extra help for approximately three weeks. It is possible for a farm hand or a group of farm hands, by starting in northern Texas in the early summer and gradually migrating northward, to secure labor for several months. Some farm hands follow the wheat harvest far into Canada.

The Pacific coast presents an agricultural seasonal labor situation somewhat similar to that of the Atlantic seaboard. This is especially true in California, where irrigation has made it possible to develop highly specialized farming. Each farmer usually confines himself to the raising of such crops as alfalfa, sugar beets, and fruits. The farmer therefore requires a certain type of laborer to do a particular work for a limited time. A migratory labor group has been developed to supply the needs of this situation.

This type of labor presents several important problems. First of all the supply is always a problem. The season for harvesting specialized crops is always short. Many men are needed exactly at the right time and for only a limited time.

It is not always easy to find a sufficient number of men available exactly at the time they are needed. Then, there is the problem of mutual interest. Living-quarters must be provided, and board is supplied by the farmer to the entire group. The interest of the seasonal laborer is in his wage and not in his work. The fact that the individual laborers in this group often have little in common with each other presents a problem for the employer.

3. *The married man who occupies a farm cottage and works for the farmer by the month or by the year.* He may or may not live on the farm where he works. If he does, he usually receives, in addition to his wages, free rent for his house and garden spot, and often he has the use of a cow or receives a definite amount of milk and the privilege of supplying himself with wood for fuel from the farm. This man, unlike the transient laborer, is part of the community in which he works.

This is the type of farm laborer that we expect to climb the "agricultural ladder" to farm ownership. The intermediate stage between the farm laborer and the farm tenant is what has been called in the South "the cropper." The cropper is a farm laborer who receives a share of the crop for his wage instead of cash. If the cropper succeeds in acquiring ownership of work animals and tools, he will then rent land on "shares," or for money rent. His status is then that of a tenant farmer. If he succeeds as a tenant farmer, he may acquire sufficient capital to make a payment on a farm of his own. As soon as he acquires an equity in the farm that he cultivates he is classified as a farm-owner. This represents the normal procedure in the transition from farm laborer through farm tenancy to farm ownership, and the relative rapidity of the process is the measure of success in farm achievement. To succeed in becoming an independent farmer, a farm laborer must have the intelligence, energy, and resourcefulness to direct his own activities.

QUESTIONS

1. What determines the basis of employment of farm labor?
2. Is there much competition for wages between farm laborers? Why?
3. Describe the relation of farm laborers to farm tenants.

SECTION 2. THE WAGES OF FARM LABORERS

The wage of the farm laborer offers a good example of the difference between money wages and real wages. The money wages of the farm laborer are only one of many considerations that enter into the employment of the farm hand. In this respect farm labor differs radically from industrial labor. The industrial worker depends almost solely on his money wages, while the farm laborer is often influenced more by other considerations in accepting employment than by the money wages he receives. For this reason the statistics relating to the wages of farm labor are often misleading. Not infrequently the inducements in the way of board, room, washing, and social opportunity are as important, if not more important, considerations in accepting employment than the money wage received. However, the money wage has been gradually increasing since the Civil War, but it varies greatly under the different systems that have been described. Naturally the seasonal laborer receives an abnormal wage for the short period of his employment. The average money wage changes from year to year and differs from place to place. The labor supply and corresponding demand, as well as the quality of the wage-worker on farms, are determining factors in this situation.

The wage received by the farm laborer at a given time and place is always the result of a bargain made between the farmer and the farm laborer. Dr. Henry C. Taylor ¹ says:

¹ *Agricultural Economics* (1919), chap. xv, p. 170.

The amount the wage-worker will take, depends upon his desire for employment and the pay offered in the various positions open to him. The amount the employer is willing to pay depends upon the use he has for the man and the number of men offering their services. The maximum wage is determined by the productivity of labor, but the actual wage is the resultant of competition among workers for positions and among employers for men. Variations in the wages in different parts of the United States and on the same job are due to differences in the qualities of the men, in the degree of responsibility placed upon the men, the character of the work, and the conditions of life. Differences in different localities may be due to differences in the relative abundance of men. It is probable also that differences in the cost of living will have a considerable influence upon the wage rate required to draw or hold laborers in a given community. For example, wages are low in the South when compared with the North. This may be attributed to several things. The quality of the labor may be lower. The cost of living is less, hence the supply may multiply on a lower income scale in the South. In the Western states wages have been relatively high, due largely to the relative scarcity when compared with the East.

Variations in wages paid for farm labor are traceable to causes different from those which affect industrial labor. The wage of industrial labor is more uniform and more definitely determined by the nature of the employment. The wage of farm laborers is often more influenced by tradition than by supply and demand. In many communities a wage scale may continue to prevail even when there has been a rapid readjustment in the prices of farm products, or when other causes exist that would normally influence wages in other vocations. Wages may be influenced more or less by the knowledge, managerial skill, physical strength, interest in the work, and the honesty of the laborer. However, the range in wages is not as much influenced by these characteristics in farm labor as in industrial labor. The reason for this is doubtless due to the fact that it is not as easy to measure these as

definitely in farm work as in industrial work, which involves the use of machinery and a definite output per man.

The demand for labor is not a fixed quantity; in fact, it varies within wide limits. The demand for labor is determined by the utilization of the farm. For example, the farmer can diversify his crop production or he can specialize on one crop. He can cultivate his land, or he can use it for grazing purposes. He can use his grain for feeding cattle for the market, or he can sell his grain directly to the consumer. Any change in a policy of this kind will modify the number of laborers required on any particular farm. All these influences, however, tend to modify the demand for labor. When wages are high and labor scarce it is the tendency of farmers to choose a type of farming which will enable them to get along with a smaller number of men than when wages are relatively lower and the labor supply larger.

Methods of paying labor. The wages agreed upon may be for a day, a week, a month, a year. Sometimes the time employment is supplemented by bonuses, profit-sharing, or by the sliding wage-scale. Payment may be made in cash, or partly in cash and partly in kind.

The methods of paying labor depend very largely on the purpose for which the laborer is employed and the nature of the farm enterprise. Wages on dairy farms are usually paid in money on the basis of monthly employment. Harvest workers or transient laborers are for the most part employed for a definite wage per day, including board while they are employed. Very often the married farm hand that lives on the place is paid a monthly wage in cash, and sometimes his cash wage is supplemented by a part of the products from the farm.

The principle of piecework is occasionally applied where special jobs are to be done. For example, plowing may be done for so much per acre, the thrashing of grain for so much

per bushel, ditch-digging for so much per yard, or berry-picking for so much per gallon. Piecework stimulates more intensive effort, as the work is paid in proportion to the results of effort.

The number of wage-workers on farms in the United States increased from 3,004,061 in 1890 to 4,410,877 in 1900, to 5,975,057 in 1910, and was 4,041,627 in 1920. The number of farms has increased by only 88,000, or 1.4 per cent in the last decade. More than half the states of the Union — twenty-five states in all — reported fewer farms in 1920 than in 1910. This means that two influences have been at work to modify the number of farm laborers employed. The number of abandoned farms has increased, on the one hand, and on the other there has been a consolidation of small farms into larger farms. Naturally the number of farm laborers employed has decreased. But the consolidation of farms under capitalistic management always tends to increase the number of farm laborers employed.

QUESTIONS

1. Describe some of the considerations that enter into the *real* wages of farm labor.
2. How does the wage of the farm laborer vary from that of the industrial worker?
3. How is farm labor paid?
4. Is farm labor increasing or decreasing? What influences the number of farm laborers?

SECTION 3. WORKING CONDITIONS AND HOURS

It should be observed that farm labor is characterized by hard work. This is inherent in the very nature of the employment. It seems impossible to plan the farm enterprise so as to relieve farm labor of long hours, especially at certain seasons of the year. Planting, harvesting, the thrashing of grain, and the cutting and baling of hay necessitate strenuous

effort. At such times long hours are necessary, and great exertion is required. Climatic changes are often the cause of this condition. The farmer is constantly confronted with the danger of great financial loss due to rain or storm. The farm-labor situation is largely an adjustment to the uncontrollable weather conditions.

The extent of labor effort differs widely on the farm. Farm labor involved in shocking grain, clearing ground of brush and stumps, and the cultivation of certain crops by hand implements is exceptionally arduous, but the increasing use of farm machinery has greatly lightened the burdens in many farm activities. This is illustrated by stump-pullers, and the tractors that are now being widely used in the cultivation of all kinds of crops.

Farm work is frequently performed under disagreeable conditions that cannot be avoided. Working in the open field subjects the laborer to all kinds of weather conditions. High winds and blinding dust often make the farm tasks very disagreeable. Much of the most strenuous work of the farm, such as the harvesting of grain, must be performed when the heat of the sun is most intense. It is not unusual that farm work must be performed while the laborer is exposed to rain or cold. The farm laborer is often responsible for the milking of cows, the feeding and care of live stock, and the general chores about the farmstead. These are exacting and daily tasks that often must be performed in cold and rainy weather. This type of labor often involves early rising, which requires unusual exposure to disagreeable weather conditions.

There is, however, a brighter side to the picture. The farmer's tasks are far from uniform throughout the year. There are many days when his work is relatively light. Rain and other causes often make it impossible to do field work of any kind. Between seasons there is always more or less



CUTTING GRAIN WITH A SICKLE

This method of harvesting means long and arduous labor



TRACTOR PULLING A REAPER

With modern farm machinery the laborer's time and strength are saved and his production is increased

leisure on the farm. All things considered, the farmer probably has as much opportunity for rest and recreation as any other class of employees.

In comparison it should be observed also that there are other classes of laborers whose work is probably more arduous and the life they live more severe than that of farm laborers. Teamsters in our cities, miners, certain classes of railroad workers and factory employees, undergo equal or even greater hardships than our agricultural laborers. On the whole, many of these employees do not have the freedom and the opportunity for advancement that the farm laborer has on the farm.

QUESTIONS

1. Describe the conditions that make labor on the farm hard. What are some of the factors tending to make farm work less arduous?
2. Will it ever be possible to establish an eight-hour day on the farm and maintain efficiency?
3. Compare farm work, from the standpoint of hardships, with work in other vocations.

SECTION 4. WOMAN AND CHILD LABOR ON THE FARM

The employment of women and children on farms presents a problem of serious concern to the nation. The employment of women and children has been a matter of necessity. The prices received by the farmer for his products have often made it necessary to keep the cost of production as low as possible. The cost of labor has been an important factor entering into the cost of production. As the labor of women and children has been the cheapest source of labor supply, it has not been surprising that they have been employed in large numbers.

There are certain types of agriculture that have made a strong appeal to women and children. The harvesting of

horticultural products and such fiber crops as cotton have naturally suggested the employment of women and children, as the nature of the employment has appealed to unskilled labor, and the strength of the worker has not been an absolute factor in the employment. In a study in Colorado the National Child Labor Committee found five thousand children between five and fifteen years of age regularly employed in raising sugar beets. Many children are employed for hoeing, topping, and worming tobacco in Kentucky and Connecticut. Women and children are employed in great numbers in the South in the cultivation and picking of cotton.

There are two objections to the employment of women in farm work. In the first place, the nature of the work often involves a posture that is very detrimental to the health of women; for example, bending over while gathering berries or picking cotton is very injurious to women. In the second place, it overburdens the woman who is compelled to do her own housework along with her regular employment. In other words, the woman is compelled to do the normal work in the house before and after her employment in the field. This means that her employment is much longer than is desirable and often involves the neglect of small children or other household responsibilities.

The employment of children on the farm also involves two very serious objections. In the first place, children are often employed who are quite young, and the employment is too exacting for their tender years. It not infrequently happens that children are injured permanently by continuous employment that involves a bodily position that is not normal. But the most serious and obvious objection to farm labor on the part of children is that it interferes with their school attendance. Many states have passed compulsory school-attendance laws in an effort to overcome this difficulty. There has been a decline in the extent of the employment of children on

the farm as a result of the efforts of child-welfare societies and the influence of school-attendance laws. But there is still much to be done in the way of rousing public sentiment to the importance of this problem.

The restricting of the employment of women and children on the farm means, of course, a readjustment in our farm-labor situation. This is being brought about gradually in many sections of the country. The increasing use of machinery has reduced the number of farm laborers to a considerable extent. The change in the utilization of farm lands is also resulting from the farm-labor problem. We must not forget that production must be maintained in order to supply the food needs of the nation, but there is every reason to believe that the gradual reorganization of the farm enterprise can be brought about without seriously interfering with the normal process of production. This probably will mean that the number of farm-owners will be increased and that the cultivation of the land will be performed by owners and tenants rather than by laborers. It is to be hoped that this may be brought about as a result of the gradual reduction in the number of women and children employed in agriculture.

QUESTIONS

1. What conditions make it possible to employ large numbers of women and children as farm laborers?
2. What are the objections to the employment of women as farm laborers? the employment of children?
3. How does the price of farm products affect the employment of women and children as farm laborers?

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CHAPTER XVIII

THE ECONOMICS OF AGRICULTURAL ENTERPRISE

The increasing recognition of agriculture as a business enterprise has impressed many of those engaged in it with the idea that success depends upon the application of the principles of economics to this vocation. The importance of agriculture and its relations to all other productive and commercial endeavors justify a brief consideration of the economic aspects of the subject in a book of this kind.

SECTION I. AGRICULTURAL ECONOMICS DEFINED

What is agricultural economics? What is its relation to general economics? These are questions that immediately confront us in an approach to this subject. In the simplest terms agricultural economics is the application of the principles of general economics to the land, labor, and capital involved in agricultural enterprise. If there were a general agreement among economists as to the principles of general economics, this definition would suffice to direct us in our thinking. It is possible, in an attempt to apply the "principles of economics" to "agricultural enterprise" to reach varying conclusions depending upon the wealth concept that is used as a basis for discussion.

Widely different conceptions of agricultural economics are illustrated by the German and French writers on this subject. The agricultural economics of Germany emphasizes national strength rather than individual gain or social welfare. On the other hand, the French economist thinks more in terms of individual prosperity of the farm population. The

American conception of agricultural economics is almost identical with that of the French writers. Taylor, a leading American authority, defines agricultural economics in rather specific terms, as follows: "Agricultural economics treats of the selection of land, labor, and equipments for a farm, the choice of crops to be grown, the selection of live-stock enterprises to be carried on, and the whole question of the proportion in which all these agencies should be combined."¹ While agricultural economics deals essentially with the price of land and its productive capacity, wages of labor, cost and utilization of machinery, and live stock, it also takes account of the credit system and the methods of marketing.

QUESTIONS

1. Why is a correct concept of general economics essential to a sound basis for agricultural economics?
2. Why is agricultural economics an important application of general economics?
3. What do you consider the more fundamental aim of agricultural economics, individual gain of the agricultural population or national strength and social welfare?
4. How are all these related?
5. Taking as a basis the definition of agricultural economics, tell what chapters in this book are most directly related to this subject.

SECTION 2. IMPORTANCE OF LAND IN AGRICULTURAL ORGANIZATION

Most business enterprise is dependent upon land, but agriculture makes the greatest demand upon this great factor in production. Manufacturing concerns and mercantile establishments require land for buildings and storage space. But the farm needs space not only for this purpose but for the essentials of growing crops and pasturing live stock.

¹ Agricultural Economics (1919), chap. i, p. 6.

The agricultural economist is particularly concerned about the producing capacity of land. The productive capacity of land is influenced by soil, temperature, rainfall, the cropping system, and the kind of crops grown. A soil deficient in water, air, decaying organic matter, or living organisms will not produce good crops. Extremely high or low temperatures during the growing-seasons or extending into the growing-seasons are detrimental to crop production. On the other hand, a good system of crop rotation and the adaptation of plant production to the natural soil types tend to increase production per unit area.

It is rarely if ever possible that all the land of any country is adapted to cultivation. In general, the proportion is usually comparatively small. The proportion of tillable to grazing-land also varies between wide limits in the civilized countries of the world. There are in most countries vast areas that are not well adapted either to cultivation or grazing. These waste lands are traceable to (1) bad physical conditions or (2) bad chemical conditions.

Bad physical conditions mean that land is too stony, too wet, or too dry; bad chemical conditions are due to too much acid or to too much alkali.¹ The marginal land that lies between waste land and grazing and tillable land is difficult to determine in any country. The application of scientific knowledge to soil problems and crop importations and adaptations are gradually transforming some waste lands into tillable lands. While there is unquestionably a limit to these possibilities, it is reasonably apparent that these processes will be greatly extended in the future.

The estimated area of the United States is 1,903,290,000 acres. The total farm lands of the United States are reported by the census of 1920 to be 955,676,545 acres, which is approximately half of the total area of the entire country. The farm

¹ Carver, *Principles of Rural Economics*, chap. iii, p. 132.



A PROSPEROUS FARM IN IOWA

The proprietor of this farm evidently works in accordance with sound economic principles

area is composed of 506,982,301 acres of *improved* land, 168,615,122 acres of *wood land*, and 280,079,122 acres of other unimproved lands. Improved land in farms includes all land regularly tilled or mowed, land in pasture which has been cleared or tilled, land lying fallow, land in gardens, orchards, and vineyards, and land occupied by farm buildings. Wood land is defined as land covered by natural or planted forest trees. Unimproved land is undeveloped farm land which may be subjected to cultivation, grazing, or forestation.

It will be seen from these figures that only about 25 per cent of the total area of the United States is now in improved farms and that more than half of the land surface of the United States is not subject to agricultural development. It should also be observed that much of the large acreage of unimproved land lies within the margin of utilization for farm purposes. The unit of the agricultural enterprise is the farm. The total number of farms in the United States, according to the fourteenth census (1920), is 6,448,366. This is an increase in the number of farms of 86,864, or 1.4 per cent, during the last decade. The number of farms varies widely in the several states. This is due of course to differences in geographical area, surface and soil characteristics, temperature, and rainfall. Texas, for example, has 436,033 farms, a number greater than the total number of farms in the three Middle Atlantic states of New York, New Jersey, and Pennsylvania. The number of farms is comparatively large in the grain-growing states in the Middle West and low in the New England states and the mountain and Pacific states.

The average size of farms has been increasing in recent years. The average size of the farms in the United States in 1920 was 148.2 acres as compared with 75.2 acres in 1910. The size of farms is a matter of economic importance. For a long time economic writers have debated the relative advantages of large and small farms. The fact is, there is a place for

the small, individual farm and for the capitalistic farm enterprise in a nation like ours. Small farms naturally develop about the great cities where there is a large market for vegetables and dairy products. On the other hand, capitalistic farming has a place in the great grain areas, where expensive machinery and large acreage are essential to a prosperous farm enterprise.

The area of improved farm lands is being continually extended by irrigation, drainage, adaptation of methods of dry land farming, and by the introduction of new varieties of crops. Much of the arid West has been reclaimed by impounding the water of the streams or stretching dams across cañons and scientifically and periodically distributing the waters over vast areas by means of lateral irrigation ditches. Agriculture has been extended into semiarid regions by the introduction of drought-resisting crops, such as macaroni wheats, and the several varieties of sorghums. Methods also have been devised for conserving the moisture in semiarid regions by what is known as dry farming; this tends to extend the tillable areas of the country.

The problems of productive capacity and economic efficiency are continually present in every effort to extend the tillable areas of the United States. The decline in the rate of expansion of the tillable area in recent years has been due to the influence of these factors. The law of diminishing returns is operating to retard this expansion. The new increments of tillable lands, on the whole, will involve a larger outlay of expenditures and human energies to develop these lands than was required in connection with most of the land already brought into cultivation. The rate of acceleration of extension of cultivation to new lands will be determined by the trend of prices of agricultural products and scientific discoveries.

An increasing population necessitates either a continuous expansion in tillable land or an increase in the production of



IRRIGATING STRAWBERRIES

Here an artificial supply of water has made possible highly productive farming on what was once waste land

each unit of land. The increased demand upon farm population is indicated by the following figures: in 1880 each 100 farmers had to feed themselves and 147 other persons; in 1890 each 100 farmers had to feed themselves and 213 other persons; in 1900 each 100 farmers had to feed themselves and 241 other persons; in 1910 each 100 farmers had to feed themselves and 337 other persons; in 1920 each 100 farmers had to feed themselves and 420 other persons; the typical American farmer is now required to produce for three times as many consumers as in 1880 and for twice as many as in 1900.

These figures, instead of being alarming, are reassuring, because more efficient methods of production and the increasing use of farm machinery make it possible for a relatively small agricultural population to maintain the food supply required by increasing numbers who are not agricultural producers. It is important, however, to consider all the factors that enter into production as a means of adjusting the agricultural population to the food requirements of the nation.

QUESTIONS

1. What do you understand by productive capacity of land?
2. What do you understand by economic efficiency as applied to agriculture?
3. Give a threefold classification of the land surface of the United States and indicate what factors determine each.
4. What significance attaches to the number and average size of the farms in your state? Under what conditions may a farm seem too small? too large?
5. What methods are being adopted to extend the farm area of the United States? Give specific examples of each.
6. Is it possible to maintain the food supply for an increasing population with a decreasing farm population? Explain.
7. What do you understand by marginal land?

SECTION 3. SIGNIFICANCE OF AGRICULTURE AS A FACTOR IN OUR NATIONAL PROSPERITY

A consideration of the agricultural wealth and income of the United States helps to estimate the significance of agriculture as a factor in our national prosperity as well as to determine the relative advantages of agriculture in comparison with other productive aspects of our national life. This can best be done by reference to figures taken from the fourteenth decennial census of 1920.

The value of all farm property on January 1, 1920, as reported to the Bureau of the Census, was \$77,924,100,338 as compared with \$40,991,449,090 on April 15, 1910. It is rather remarkable that while there has been only a slight increase in the number of farms and an increase less than 10 per cent in the farm acreage, the value of farm property has nearly doubled during the last decade. It should be recalled, however, that farm values in many localities were abnormally high at the time the last census figures were collected. Several states reported farm values, including buildings, in excess of \$3,000,000,000. These states include Iowa, Illinois, Nebraska, Texas, Minnesota, California, and Missouri. Iowa stands first with a farm valuation of \$8,524,870,956; Illinois stands next with a valuation slightly less than Iowa; while the states that come next are Nebraska and Texas, with a farm valuation slightly more than \$4,000,000,000.

The average value per farm and per acre indicates more definitely the individual capitalization of the farm enterprise. The average value of land and buildings per farm in 1920 for the United States was \$10,284, as compared with \$5471 in 1910. The average capital investment, however, is above \$25,000 in Iowa, South Dakota, Illinois, Nebraska, and California. These averages ran as high as \$35,616 for Iowa and only slightly less for South Dakota. The average value of

farms, including buildings, in Texas, in Tennessee, and in Alabama in 1920 was about twice that of 1910.

The value of the farm enterprise is determined by the land, buildings, implements and machinery, and live stock. The implements and machinery alone were estimated in 1920 at \$3,594,772,928. The average value of implements and machinery per farm in 1920 was \$557. The value of live stock on farms in the United States in 1920 was \$8,013,324,808. The average value of live stock per farm was \$1243. These figures are sufficient to show that the farm is a business enterprise involving a considerable amount of capital investment.

The sale of agricultural products in the United States yields a national income of great proportions; in fact, it is the second largest single source of income and comprises more than one sixth of the total income of the United States.¹ The total income of the United States increased from about \$28,000,000,000 to \$60,000,000,000 from 1909 to 1918. The income from manufacturing increased from \$6,000,000,000 to \$16,000,000,000 in the same period, while the agricultural income increased from \$4,500,000,000 to \$12,500,000,000.²

QUESTIONS

1. What is the measure of agricultural prosperity?
2. Are high prices of farm lands an indication of agricultural prosperity? Explain.
3. Is the agricultural income of the United States adequate from the standpoint of capital investment?
4. How do the prices of farm lands affect the number of farm-owners? Can this difficulty be overcome without reducing prices of farm lands? If so, how?
5. What is the total agricultural income of your state? How does it compare with the total agricultural income of the nation, and the states adjoining your own?

¹ Wesley C. Mitchell and others, *Income in the United States*, chap. ii, p. 22.

² *Ibid.*, chap. ii, p. 18.

SECTION 4. AGRICULTURAL CREDIT

The previous discussions have assumed that the farmer owns his land, equipment, and live stock with which he conducts his farm enterprise. But it needs to be recalled that the problem of securing capital with which to acquire the farmstead, equip it, and finance its operation is an important economic consideration. Agricultural credit, therefore, becomes an important factor in the success of agricultural enterprise.

The farmer needs three kinds of credit: (1) He needs credit to enable him to purchase his land or at least to supply a large part of the purchase price. (2) He needs credit with which to secure funds for the purchase of the equipment and live stock. (3) He needs credit with which to secure funds to purchase his supplies during the cropping-season. These three classes of credit may be designated as long-time credit, intermediate credit, and short-time credit.

It is now generally recognized that banks are not credit agencies completely adapted to the financial requirements of farming. The banks of this country are organized primarily to serve the credit needs of commerce and industry. Business enterprises of these kinds usually require large sums of money for short periods — usually thirty, sixty, or ninety days. The farmer is confronted with a different credit situation. The turnover in his business is not subject to arbitrary or fixed time limits. His credit needs are determined by the laws of plant and animal growth and development. He must adjust his financial transactions to the necessary time for his live stock to grow to maturity and become ready for market and for his plant production to grow to fruition and ready for harvest. Land, equipment, and supplies, therefore, are subject to different time limits of financial obligations. The adjustment of credit to meet these requirements is one

of the most important considerations confronting the agricultural producers at the present time.

In the last few years much consideration has been given to this matter. The most comprehensive law that has been passed in the interest of farm enterprise is the Farm Loan Act, which was passed by Congress on July 17, 1916. This act divides the United States into twelve districts with a Federal land bank in each district. The farmer seeking credit secures his loan through the National Farm Loan Association. This association is a local institution composed of ten or more farmers all of whom are interested in borrowing money on farm mortgages. Loans are limited to \$10,000 on each farm and to 50 per cent of the value of the land plus 20 per cent of the value of the buildings. The Federal Farm Loan Act applies the principle of long-time credit with low interest rates and gradual repayment of principal. This act gives promise of rendering great assistance in encouraging landownership on the part of farmers.

Little progress has been made in devising a system of intermediate credit, but the principle underlying it is becoming generally recognized. Farm machinery is a liability for some years. A silo does not pay for itself or return a profit on the cost of construction for several years. Fertilizer may not bring full compensation until two or three years after it is applied. It is obviously undesirable to require the farmer to borrow money on short-time credit for financing farm items of this kind. *There is need for devising a system of credit, therefore, that will extend farm credit operations over a period of years to be determined on the basis of the duration of the effective use of the equipment on which the credit is based.*

Short-time credit as an aid to the purchase of supplies for producing a crop is in process of solution. But the old system of "store credit," where the farmer, usually the tenant, purchases his supplies at the credit store at exorbitant prices has

many objectionable features. The abuse of the store-credit practice has caused an increasing number of farmers to turn to the banks for loans to operate their farms. While in many cases the interest rates have been too high, this system has been a great improvement over the store-credit plan. The problem has been to devise a method to reduce the financial risk of the banker so that he can reduce his interest rates. In a number of states local credit unions have been authorized by law whereby a number of farmers can jointly assume financial obligations as a means of decreasing the financial risk of individual members.

QUESTIONS

1. Name the credit agencies familiar to you that are available to farmers.
2. Explain fully why a deposit banking system cannot fully meet the credit needs of agriculture.
3. Explain the principal provisions of the Farm Loan Act. Does it completely meet the requirements of agricultural credit? Explain.
4. Explain the need for intermediate credit. Suggest a means of supplying it.
5. Name five sources of short-term credit available to farmers.

SECTION 5. MARKETING OF FARM PRODUCTS

It is one thing to exert human effort and to finance the bringing of farm products into existence; it is quite another thing to systematize the marketing of these products so as to get a reasonable price for them. The former relates to the economics of production, the latter to the economics of distribution. Both are essential and contribute to the farmer's prosperity.

The marketing of farm products has been defined as "the rendering of those essential services which enable the consumer

to utilize the products of the farm.”¹ These “essential services” have been rendered up to the present time by the so-called “middlemen.” The middleman has come in for much criticism, due to the belief that his “toll” has been too great. There was a time when the producers and consumers exchanged their products by direct dealing; but with the development of trade and transportation and the increasing specialization of both agriculture and industry, the middleman gradually emerged as an agency of both classes. He sought out sources of supplies and products, collected them in appropriate places, and supplied them to the consumer. It is freely admitted that in this capacity the middleman has served a useful purpose. But increasing evidence that waste and abuse of the system have robbed the farmer of a share of his profit has caused him to seek a more economical and efficient way to market his products.

It is generally admitted that there are four aspects to the marketing of farm products: (1) the production of a good product; (2) the storage of the product for protection and as a means of preventing “dumping,” or seasonal selling at a sacrifice; (3) rapid, dependable, and cheap transportation to market centers; (4) adequate credit, to insure the finances necessary to accomplish these objects. Before a good product can be marketed satisfactorily some agency must be set up for (1) assembling, (2) grading and standardizing, and (3) packaging. These services vary with the nature of the product and the requirements of the consumer.

Marketing agencies may be classified as follows: (1) private marketing agencies, which may consist either of individual consumers, partnership enterprises, or corporations; (2) coöperative marketing associations; (3) governmental marketing activities established by Federal, state, county, or municipal authorities to assist the agricultural producers in

¹ Macklin, *Efficient Marketing for Agriculture* (1921), chap. ii, p. 28.

marketing their products more efficiently. The fundamental services to be rendered and the methods employed are the same for all three classes of agencies. All are endeavoring to secure the largest possible profit or the maximum savings from the services rendered. The difference comes in the distribution of these profits.

Private marketing agencies have rendered great service to the farmers in the sale of their products. They have been entitled to reasonable profit for the service rendered. But bitter opposition to private agencies has developed because of the belief on the part of the producers that in many cases these agencies are inefficient and expensive. In other words, it has cost the farmer too much to market his products, owing to the fact that the private agencies have received more than a just portion of the selling price of the products, or too much of it has been consumed through wasteful methods of marketing.

A widespread movement among farmers for the coöperative marketing of their products has resulted from this belief. It is a well-known fact that vast surpluses of staple crops are often left on the farm unmarketed, or else the farmer has been compelled to sell at prices below the cost of production. On the other hand, the prices of the articles the farmer buys, many of which have been manufactured out of the raw materials he produces, are proportionally high. Coöperative marketing, which attempts to remedy this situation, may be defined as an enterprise in which the members form an agency through which they conduct for their common advantage the business of merchandising the commodities they produce.

Coöperative-marketing associations must conform to several requirements. (1) They must be proper, legal entities with sufficient powers to transact the business for which they are formed, to finance their activities, and to enforce their obligations when necessary. (2) The membership should be

confined exclusively to persons who are engaged in the production of the particular commodity which the association is merchandising and who actually use its facilities. (3) It must be held together through an agreement, or contract, between the members of the organization, and this agreement should be binding over a sufficient period of years to secure continuity of business practices. (4) It is generally believed that the coöperative association should be based on the commodity principle; that is, the merchandising should center around a single industry, like fruit, grain, cotton, or cattle.

Coöperative marketing has applied these principles in a very successful way in the California Fruit Growers' Exchange, through which 10,500 members sell nearly \$100,000,000 worth of citrus fruits annually to the wholesale trade. The California growers have formed more than two hundred local associations, each owning its own packing-house and managing its own affairs. For business efficiency these associations have federated into a central agency through which are provided the facilities for the sale of their fruits. Very recently the coöperative marketing of cotton and grain has been undertaken on a large scale. Cotton-marketing associations today are doing business in Texas, Oklahoma, Mississippi, and other Southern states. These associations are operating under special marketing statutes in the states where they exist. In a similar way coöperative marketing of grain and live stock is being undertaken. While it is likely that these coöperative agencies for the selling of farm products will meet with many difficulties and experience some mistakes, it seems reasonably sure that they are destined to become increasingly important as agencies for the marketing of farm products. With the assistance of governmental agencies, especially in financing the operation, it seems evident that coöperative marketing will help to reduce the waste and inefficiency in the distribution and sale of farm products.

QUESTIONS

1. What can you say of the economic position of the middleman?
2. Classify the agencies of marketing. Discuss the strong and weak points of each.
3. What is commodity marketing?
4. What are the four essentials of any good marketing system?
5. Give the essentials of a good coöperative marketing system.
6. Give illustrations of successful coöperative marketing associations known to you.

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CHAPTER XIX

PUBLIC FINANCE

Public finance has been defined as "a study of the collection and expenditure of funds legally devoted to public ends."¹ The subject embraces (1) public expenditure, (2) sources and collection of public revenue, (3) extent and nature of the public debts, and (4) policies of financial administration.

Public finance takes account, on the one hand, of the policies of government; and, on the other, of the source and extent of public resources necessary to sustain these policies. Such questions as a bonus for former soldiers, mothers' pensions, and public operation of railroads are fundamentally questions of governmental policy. Sources of public revenues to support these governmental activities are essentially matters of financial operation. Public finance, therefore, may be regarded on the one hand as applied economics and on the other as applied political science. This discussion will not consider the political policies involved, but public finance will be considered in this discussion as one of the applications of economics.

SECTION 1. PUBLIC EXPENDITURES

The state renders its services through governmental agencies. Money and services are required for the performance of governmental functions. The number and nature of these services vary widely in civilized nations. But generally speaking the scope of the public services of nations has been increasing rapidly in recent times. Public expenditures have been classified as follows:

¹ W. M. Daniels, *Public Finance*, p. 2.

1. Expenditures for those objects of government which confer a common benefit on all citizens. These include expenditures for the constitutional agencies of government, such as the support of administrative and legislative branches of government. The support of the army and the navy, the diplomatic corps, and the police activities for the maintenance of order are included under this head.

2. Expenditures for the support and control of certain classes of dependents, defectives, and delinquents. Under this head may be included hospitals, juvenile-training institutions, institutions for the care of the feeble-minded and the insane, and similar publicly supported schools and asylums.

3. Expenditures for objects that confer a special benefit on certain persons and a common benefit on all citizens. The administration of justice, the postal service, patents and copyright privileges, and similar functions come under this classification.

4. Expenditures for objects which confer a special benefit on individuals. These include monopolies carried on by states and cities as sources of revenue, such as state-owned railroads, publicly owned toll bridges, municipal light and water plants.¹

A simpler classification is given by Daniels, based on the historical growth of public expenditures. These include (1) war, (2) internal securities, (3) industries, and (4) social well-being. Daniels calls attention to the historical fact that in the evolution of states personal military service gradually gave way to the professional soldier. As society became more complex it became more profitable for the citizen to pay into the public treasury a sum for the employment of a military force rather than to contribute his own services. Expenditure for industry was not required until the state had

¹ Carl C. Plehn, *Introduction to Public Finance*, Part I, chap. i, p. 19.

developed its economic interests. Then the government assumed responsibility for establishing uniform standards of weights and measures, enforcing commercial contracts, the coinage of money, the granting of patents and copyrights and similar activities.

More recently still have modern states begun to expend funds upon a rapidly extending circle of social interests, of which education is the most prominent and by far the least questionable. This category serves as a sort of dragnet for all public functions which cannot be classed under the head of Defense, Internal Security, and Industry. It includes the care of the defective, delinquent, and indigent classes, the provision of public luxuries and amusements, and in some states the portentous establishment of industrial pensions.¹

Governments are doing many new things, most of which are good, and are doing the old things better. Educational facilities are better, more varied, and although more costly, create in each succeeding generation new sources for meeting the cost of the new methods. Prisons have changed or are changing from punitive to curative institutions, and every criminal cured is an economic asset instead of a burden. The same is true of institutions for the care of defectives. The mothers' pension system has greatly increased the chance of making good citizens of the half-orphans. Proper provision for industrial accidents has spread the burden thereof over the many who can carry it easily instead of allowing it to fall with crushing weight on the few. Old-age pensions and public servants' pensions are being transformed from doles into rights. We are protected from adulterated foods and to a greater extent than before from epidemic diseases. . . . Public utilities are being made more and more public servants. When the world goes to war it does so more efficiently than ever before. In every direction the public money is being more wisely spent, and our impatience with the waste of public money, which is greater than ever, is in itself proof of progress.²

¹ Daniels, *Public Finance*, Part I, chap. 1, p. 30.

² Carl C. Plehn, *Introduction to Public Finance* (Preface to the Fourth Edition), p. x.

There is a familiar dictum of public finance that "the state regulates its income by its expenditures and not its expenditures by its income." While this statement is generally true, it is necessary to consider the relation of national wealth and income to total expenditures for public purposes. It must be obvious that there are limits to the total of public expenditures and, after all, these limits are determined by the capital wealth and annual income of the nation. The public wealth of the United States is composed of the private and corporate wealth of the nation, plus the public resources, such as buildings, improved waterways, timber and mineral resources.¹

The capital wealth of the United States was estimated to have increased from \$107,104,000,000 in 1904 to \$187,739,000,000 in 1912. This was a total increase in the eight-year period of \$80,635,000,000, or slightly more than an average of 10 billion each year.²

The total income of the United States has been estimated to have increased from \$28,800,000,000 in 1909 to \$61,000,000,000 in 1918. In determining the source of taxation it is necessary to know the source of income and the relative extent of the national income from each source. A knowledge of the fractional parts of the total annual income derived from agriculture, mineral production, manufacturing, transportation, banking, and miscellaneous industries helps in distributing the public burden in the most equitable manner. In recent years an attempt to determine as accurately as possible these sources of income has been undertaken in the interest of the general public.³

¹ See King, *The Wealth and Income of the People of the United States*, chap. ii, p. 7.

² David Friday, *Profits, Wages, and Prices* (1920), chap. v, pp. 80, 81.

³ See Wesley C. Mitchell and others, *Income in the United States* (1921), Vol. I, which is a summary of the investigation that is being conducted by the staff of the National Bureau of Economic Research.

The rapidly increasing wealth and income of the nation as well as of the several states have made it possible to increase the scope of the national public activities. The normal public expenditures have been increasing rapidly in recent years. The public expenditures during the World War have broken all precedents and extended the amount to almost inconceivable figures. There was a rapid decline, of course, in the total expenditures after the war.

To the vast totals spent by the Federal government must be added the public expenditures of the several states, counties, townships, and cities. Probably the average state expenditures of the United States will approximate \$25,000,000 or \$30,000,000 annually. The cities of the country are spending enormous sums on public buildings and street improvement. Counties are increasing their expenditures for highways and other improvements.

There is no problem confronting the citizenship of the nation more important than the determination of the source of its public funds, the equitable distribution, and the efficient expenditure of these funds in the interest of public welfare.

QUESTIONS

1. Explain the classifications of public expenditures and give one or more illustration of each.

2. Name four or five of the more recent public activities that governments have assumed, and give two or three reasons for and against each of these.

3. Explain the meaning of the following: "The state regulates its income by its expenditures, and not its expenditures by its income."

4. What determines the final limits of public expenditures? Is it possible to determine the aggregate public expenditures in dollars? Why?

5. Illustrate the increase in the expenditures of the Federal government in recent years by figures. What is the aggregate

expenditure of your own state government per year? your county government? your town or city government?

SECTION 2. PUBLIC REVENUE

Public officials are confronted with no more difficult and important task than that of providing the revenues necessary to maintain the agencies of government. Sources of revenue must be determined and administrative agencies provided for assessing and collecting these revenues. Henry C. Adams¹ has classified the public revenues and indicated the sources as follows :

Public revenue	1. Direct revenue	a. Public domains
		b. Public industries
		c. Gratuities or gifts, or treasure-trove
		d. Confiscations and indemnities
	2. Derivative revenue	a. Taxes
		b. Fees
		c. Assessments
		d. Fines and penalties
	3. Anticipatory revenue	a. Sale of bonds or other forms of commercial credit
		b. Treasury notes

There was a time when the public domain was an important source of revenue in most countries. In feudal times the public domain was the principal source of the revenue of governments. During the first fifty or sixty years of our national history the sale of our vast public lands provided a large revenue for general purposes. But the public domain is no longer a great source of revenue in any civilized country.

Public industries are hardly to be regarded as a source of revenue in this country. Public utilities are maintained in many cities, but they are utilized to reduce the cost of supplying these utilities to the citizens rather than as a source of revenue. In Europe a number of cities commercialize water, gas, and electric plants for revenue purposes.

¹ The Science of Finance (1899), p. 227.

Gratuities and gifts are negligible sources of revenue in modern times, and confiscation and indemnities may be disregarded altogether as sources of revenue in civilized states. Modern states derive their principal source of revenue from taxes, supplemented by fees, assessments, fines, and penalties.

The following indicates the principal sources of revenue for the support of the Federal government and the amount collected for 1919:

Customs	\$ 183,428,625
Income and excess-profits taxes	2,600,783,903
Miscellaneous internal revenues, including distilled spirits and alcoholic beverages	1,487,358,205
Interest on obligations of foreign governments . . .	322,162,228
Interest on public deposits	23,709,715
Profits on coinage and bullion	11,963,244
Premiums on war-risk insurance	4,225,398
Indian moneys	13,972,534
Panama Canal tolls	6,777,047
Public-debt receipts, including war loans	29,075,976,516
Postal revenues	<u>364,847,126</u>
Total revenues	\$34,095,204,541

While this indicates an abnormal income for the nation, due to the item for public-debt receipts, including war loans, it is indicative of the general sources of revenue at the present time. Most of these revenues are derived from the taxes assessed on persons and property of the nation. A tax has been defined by Bastable as "a compulsory contribution of the wealth of a person, or body of persons, for the services of the public powers."¹ Every word in this definition is essential to a correct understanding of the nature of a tax. But it should be understood that some taxes are absolutely compulsory, while others are conditionally compulsory. Income taxes, inheritance taxes, and poll taxes are absolutely compulsory. An excise tax or a tariff duty may be avoided by not using those articles on which this tax is levied.

¹ Public Finance, Book III, chap. i, p. 263.

Taxes have been variously classified. The oldest and most familiar classification is that of direct and indirect taxes. The Constitution of the United States provides that *representatives and direct taxes shall be apportioned among the several states . . . according to their respective numbers*. A tax paid directly by the individual to the government has been regarded as a *direct tax*. The real meaning of these terms is illustrated in the following quotation from Carver:¹

All real taxes are direct in the sense that the payers pay their money directly to the government. In some cases, however, the payer is able to shift the tax to somebody else by charging a higher price for a product or by paying a lower price to the one from whom he himself buys the product. The manufacturer of alcoholic liquor pays his excise duty as directly to the government as any other tax; but if he charges the consumer a higher price for the liquor the consumer is then said to pay the tax indirectly; but he may also pay the producer of the raw materials a lower price, and in that case it is the producer who pays the tax, in part at least; and if the manufacturer carries a part of the burden which he is unable to shift to someone else, he himself bears that burden directly, not indirectly.

A more important classification is that of taxes on (1) persons, (2) property, and (3) income. All per-capita and poll taxes are personal taxes. Taxes on property are those based on valuation of real and personal property. The theory of a property tax is based either on benefit supposed to be received or on the owner's ability to pay. Taxes on income are those assessed on wealth in the process of acquisition.

Personal taxes are assessed against persons who pay the taxes either as individuals, as representatives of a group (as, for example, the family), or according to some characteristic such as employment, age, or rank.

The general-property tax is usually based on the entire amount of property, both real and personal, that is owned by

¹ Principles of Political Economy (1919), chap. xliii, p. 505.

the taxpayer. This source of taxation is an old and a favorite one. In the United States the property tax is the main source of state and local revenue. The Federal government in the United States does not derive any public revenue from this source.

The popularity of the general-property tax is very much on the decline in this country. The rapidly changing forms of property, the inequality in the assessment of real and personal property, and the widely different amounts of income derived from real and personal property have been responsible for increasing opposition to the general-property tax. Seligman¹ summarizes the practical defects of a general-property tax under five heads, as follows: (1) lack of uniformity, or inequality of assessments; (2) lack of universality, or failing to reach personal property; (3) incentive to dishonesty; (4) double taxation; (5) regressivity.

The validity of these criticisms is well known and as a result the popularity of the general-property tax is on the decline.

The changes in the productive powers of the people have correspondingly modified the sources of public revenue. With the decline in the popularity of the property tax has come the necessity for seeking new sources of taxation. In recent times income from industry has greatly supplemented the earnings from property. This situation has been responsible for the tendency to supersede or to supplement property taxes by personal taxes. The most popular theory of taxation is that every citizen should pay according to his ability. The opinion very generally prevails that annual income is the best measure of the taxpayer's ability, and therefore that the income of the citizen is the most just source of taxable assets. For this reason there has been a tendency in most modern states to change the fiscal system so that taxes shall be proportioned as nearly as possible to the income of the taxpayers.

¹ Essays in Taxation, chap. ii, pp. 19-32.

An income tax may be defined as a direct levy by governmental enactment upon the income of individual citizens. An income tax may or may not discriminate as to sources of revenue. The tax is applied to income derived from wages, profits, or interest. Small incomes, regardless of their sources, are usually exempt from taxation. The state, in fixing the basis of exemption, attempts to set up a minimum standard of living for the family group, and the tax is assessed only on incomes that are in excess of the sum necessary to maintain this standard.

The history of income-tax legislation has developed considerable variety in the detailed application of the system. In some cases all incomes above a fixed minimum, regardless of the size, are subject to the same rate. If, for example, all incomes are to be taxed 2 or 3 per cent, the tax is said to be *uniform* or *proportional*; but if the rate of taxation increases with the amount of income, — as, for example, 2 per cent on incomes from one to three thousand dollars and 3 per cent on incomes from four to six thousand dollars, — the tax is a *graduated* or *progressive* tax. There is a tendency in all countries where an income tax is assessed to apply the principle of progressive taxation. The graduated income tax is based on the principle of Adam Smith, who says that “the subjects of every state ought to contribute to the support of the government as nearly as possible in proportion to their respective abilities; that is, in proportion to the revenue which they respectively enjoy under the protection of the state.”

Historically the income tax has been the outgrowth of the necessities of war, and the justification for it has been that this tax threw the additional burden upon the wealthy. But the recent World War, with its unprecedented fiscal problems, caused the states to resort to a new source of taxation to supplement the older forms of property — consumption and income taxes. This new tax has been called the excess-profits

tax. It is a form of the income tax, and the laws relating to it follow somewhat the fiscal policy of the ordinary income statutes. The excess-profits tax had its origin in Denmark and Sweden in 1915. War conditions made it possible for the commercial interests of those countries to reap great profits from their rapidly increasing trade with Germany. As Germany was largely cut off from the rest of the world, Denmark and Sweden were able to monopolize the trade of the Central Powers. The abnormal profits were largely derived from the sale of foodstuffs, which suggested to the taxgatherers the name of "goulash," or stew tax, for the revenues derived from this unusual source of wealth.¹ When the tax was first devised the aim was to assess the tax on abnormal profits resulting directly from war conditions. The manufacturers of munitions and other war material were expected to bear the burden of this tax. Gradually, however, all abnormal profits came under the provisions of the law. For example, the first tax applying this principle in the United States was that of a tax of $12\frac{1}{2}$ per cent on the profits of manufacturers of munitions which was levied under a congressional act of 1916. This was extended to a general war-profits tax in October 1917. Congress superseded this act by the more comprehensive revenue act of 1918. This tax was accepted with little protest during the war period, but with the close of the war protest against the excess-profits tax became very general. Congress repealed the act.

Fees and assessments are other forms of taxation. They are less important now than formerly, but some forms of fees and assessments are of very ancient origin. Fees and assessments are charges made directly upon individuals for public services rendered, or benefits performed in connection with ministerial acts, or improvements made at public expense. Fees for the registration of important documents and court

¹ See Plehn, *Introduction to Public Finance*, chap. x, p. 294.

"costs" fixed by law in connection with litigation illustrate the forms of fees.

Special assessments differ somewhat from fees. A familiar form of special assessment is in case of improvement of property undertaken in the public interest. Special assessment against private owners of property for paving at public expense, for adjacent streets, or for the extension of sewer or water mains illustrates this special form of taxation.

Both the sources of revenue and the administration of the fiscal affairs of the government are undergoing radical changes at the present time. The enormous increase in public expenditures has demanded a searching inquiry into available sources of revenue. Tax commissions with large powers of control over assessments and collections of taxes have been the inevitable consequence of the increasing importance of the fiscal problems of states. These problems challenge the highest intelligence and the most unselfish devotion of the citizen.

QUESTIONS

1. What is the largest source of public revenue in the classifications given in the beginning of this section?
2. Which source of revenue, according to the classification of Adams, is for annual maintenance and support of the government? Which indicates public debts?
3. What is the difference between a tax and an assessment?
4. Give two classifications of taxes.
5. Give arguments for and against the assessment of a poll tax.
6. What are the more recent forms of taxation? What are some of the forms that war taxes take?

SECTION 3. PUBLIC DEBTS

The primary necessity of government is to provide adequate revenues as they are needed. It is highly desirable, of course, to keep expenditures within the available revenues, but this

is not always possible. Financial depression or unusual undertakings, such as war, may suddenly increase expenditures in excess of available revenues. Under these conditions the state runs in debt and is confronted with the necessity of borrowing. The fact is, this is not an abnormal or exceptional situation for the modern state.

Public debts may be classified as (1) funded and (2) unfunded, or floating, debts. Funded debts are those that the government has formally acknowledged and the interest thereon is provided for by law. The various issues of Liberty and Victory bonds illustrate this type of public debt. Unfunded, or floating, debts consist of various unpaid accounts due by the government for supplies furnished or services rendered to the government. The promissory notes of the government that circulate as money are evidences of public debt. Such government promises circulate as money and are generally recognized as legal tender in payment of private debts. They are redeemable, or supposed to be redeemable, in coin. As long as the government is regarded as entirely solvent these notes circulate at par value and are freely accepted in exchange for goods, but abnormal issues of paper currency tend to raise the price level of commodities and to drive an approximate equivalent of coin out of circulation.

The public debts of most of the nations of the world have greatly increased in recent years owing to the World War. The following table indicates the increases from 1913 to 1920 of the leading nations :

Germany	from	\$1,194,000,000	to	\$71,900,000,000
France	from	34,000,000	to	382,000,000
Italy	from	2,921,000,000	to	18,650,000,000
Japan	from	1,242,000,000	to	1,713,000,000
Norway	from	97,000,000	to	314,000,000
Russia	from	4,538,000,000	to	22,774,000,000
Spain	from	1,814,000,000	to	2,335,000,000

Turkey	from	676,000,000	to	2,310,000,000
Great Britain	from	3,486,000,000	to	37,910,000,000
United States	from	1,029,000,000	to	24,500,000,000

According to figures compiled by the economists of the National City Bank of New York City, the national debts of the nations of the world increased from \$43,000,000,000 in 1913 to more than \$382,000,000,000 in 1921. While we cannot grasp the full significance of these figures, we can understand that the relative indebtedness of the civilized nations has increased enormously as a result of the World War.

This situation has produced a marked influence on the balance of trade between nations and the rates of exchange. Never before have the peoples of the several nations of the world been brought to appreciate so completely their interdependence as by the effect of these conditions.

The effect of debts on national prosperity is a matter of economic importance. When is public borrowing justified? How do the different objects or necessities affect the general economic situation? It is generally agreed that noneconomic expenditure should not be incurred if it is possible to prevent it. War expenditures are, of course, not economically profitable in so far as they are incurred for the expenses of consumable material and are used to divert the man power of the nation from ordinary productive to military pursuits. There are some public expenditures that involve debts that may be regarded as indirectly profitable and for which the state is justified in assuming obligation. Bond issues from which funds are derived for extending education, promoting the health of the population, or improving the living conditions of the citizenship are justified on the grounds that increased intelligence, a more vigorous population, and higher standards of living indirectly result in increased production and a corresponding increase in the nation's income. "Public expenditures," says J. A. Hobson, "on health and education, in

particular, add immensely to the future production of the nation.”¹

Borrowing for productive purposes does not differ in an economic sense from private borrowing for similar purposes. If the enterprise gives promise of success and the undertaking is vindicated by business judgment, it is usually not regarded as objectionable. Borrowing for productive purposes usually takes the form of public improvements — like digging the Panama Canal — or is for the purpose of keeping certain classes employed on productive enterprises. In most cases public enterprises of this character are of a nature that would not be undertaken by private enterprise and therefore represent actual and exclusive undertakings in the interest of the general welfare.

Regardless of the ultimate effects of national borrowing, however, the immediate effect may be temporary economic depression if the loans are relatively large in proportion to the nation's wealth or annual income. It is well to understand that taxes come from annual income. Loans have their sources in a nation's capital. In other words, bond issues tend to absorb capital from private productive enterprise. This tends to affect the wages, interest rates, and profits derived from private business undertakings. Large public borrowing often has the effect of stimulating saving, while high taxes may reduce the funds from which new savings are made and thereby retard the accumulation of capital. It has been maintained that the excess-profits taxes and the income taxes of recent years have had this effect. It may be generally assumed, however, that a large national debt is not an evidence of national prosperity, as some of our early economists held, but that as a general thing expenditures of a government in excess of the available annual revenues tend to retard the normal process of production and industrial development.

¹ Taxation in the New State (1920), Part I, chap. iii, p. 71.

There are those who believe that borrowing should not be resorted to by the government for unproductive purposes. How, then, are such activities as war to be financed? It has been proposed to levy either in single or in several yearly installments a tax upon the entire accumulation of wealth in the country.

Some of the early economists debated at length the question of whether the debts of nations should be paid off within a reasonable time or should be allowed to continue indefinitely. It is now the general policy in most modern nations, when public debts are assumed in the form of bond issues or other evidences of indebtedness, at the same time to levy a tax sufficiently large to meet the interest charges and to provide a sinking fund. By this means a nation definitely commits itself to a policy of debt payment.

QUESTIONS

1. Classify public debts and illustrate each.
2. Summarize the effects of war debts on national prosperity.
3. Classify the public debts of the United States. State the significance of each.
4. Classify public expenditures with reference to their uses. Give examples of each.
5. What do you understand by a capital levy? Give reasons for and against it.

SECTION 4. THE BUDGET

The determination of sources of revenue, the preparation of estimates, the methods of financing public obligation and accounting for funds spent involve important problems of public financial administration. Several questions suggest themselves in this connection. How may the financial needs of government be determined? How may these needs be supplied after they are determined? How may economy in

expenditure and efficiency in the use of public funds be secured? Finally, how can the spending agencies best be held responsible? The answers to all these questions are intricate but important in the consideration of the fiscal affairs of a state or nation.

Before a fiscal policy can be determined some agency must be established to prepare estimates. These estimates must be submitted for ratification to some legally established body and ratified in whole, or in part. Agencies then must be established for the collection and distribution of the funds to the several objects for which they are appropriated. While many of the problems and policies implied by these statements fall within the exclusive province of political science, some of them have a definite economic basis.

A budget, for example, is essentially an economic device. Its preparation, legalization, and execution rest essentially on economic principles. It is designed to systematize revenues and expenditures and hence promote economy in the expending of public funds.

A budget has been defined as *a set of estimates for all administrative departments, prepared, upon the basis of the reports of the department heads, by a single executive officer or board.*¹ "Under all systems of public financial administration the legislature, or fund-granting organ of government, is supplied with a certain amount of information."² But before documents in which this information is submitted can be said to constitute a budget the following three essentials must exist:

First, that the legislature is furnished by the executive with the information needed by it for the intelligent performance of its function as the policy-determining organ of the government; second, that the legislature is aided by having presented to it a financial program framed by the executive, for the wisdom of which he assumes

¹ Holcombe, *State Government in the United States*, p. 333.

² Willoughby and Rogers, *Introduction to the Problem of Government* (1921), chap. xvi, p. 280.

personal and political responsibility; third, that the legislature accepts the executive program thus presented to it as a working basis for its own action.¹

Budget reform in the United States began in cities. Wasteful expenditures in cities by irresponsible municipal authorities resulted in the formation of the National Municipal League and similar organizations. These agencies assumed responsibility for research studies in methods of improving municipal administration. The National Municipal League in 1899 included in its draft of the modern Municipal Corporation Act a section providing for a budget to be prepared by the mayor for the information of the city council. The adoption of this plan in a number of cities and the beneficial results caused the extension of the plan to several of our states. Maryland was the first state to adopt the budget system. The people of that state ratified the constitutional amendment providing for a budget system on November 7, 1916. Utah followed on February 21, 1917, by adopting one of the most comprehensive acts that have been adopted by any American state. Since 1916 more than thirty states have adopted some kind of budget system.²

The United States government has operated without a budget until very recently. Congress in the past depended on estimates prepared by the several departments. These estimates have been compiled in a mechanical way in the office of the Secretary of the Treasury, and transmitted to Congress. There has been no agency of government to appraise the merits of items or to prevent duplicating requests for appropriations. The president has not assumed any responsibility for the formulation of the budget. The only attempt Congress has made to place any budget-making responsibility on the president has been in connection with prospective deficits. Congress

¹ Willoughby and Rogers, *Introduction to the Problem of Government*.

² W. F. Willoughby, *The Movement for Budgetary Reform in the States*.

has decreed that in cases of this kind the president shall "advise the Congress how, in his judgment, the estimated appropriations could with less injury to the public service be reduced so as to bring the appropriations within the estimated revenues." While this provision was passed in 1909, our presidents have never paid any attention to it, presumably because they have felt that Congress would not be greatly influenced by their suggestions.

Previous to 1920 Congress did not manifest much interest in improving its financial machinery with reference to public expenditures, but the rapidly increasing demands upon the public treasury as a result of war problems and the increasingly complex problems of public finance compelled Congress to seek more systematic methods in connection with estimates and appropriations. At the second session of the Sixty-sixth Congress a bill was passed creating the budget system, but it was vetoed by the president because it attempted to restrict his constitutional power of removal from office. Congress also concentrated the work of preparing an appropriation bill in the hands of one committee of the House of Representatives consisting of thirty-five members. Previous to this time eight or more committees were charged with the responsibilities of considering appropriation estimates for the several departments of government and preparing bills for their maintenance and support.

A budget and accounting bill was passed in 1921, and as the previous objections were removed, it promptly received the approval of the president. This act creates in the Treasury Department a Bureau of the Budget. The director and assistant directors are appointed by the president. The heads of departments are required to furnish the director such information as he shall require with reference to their needs. The budget is then prepared by the director from this information and submitted from time to time by the president to Congress.

In contrast with the tardy adoption of the budget system in the United States, other constitutional governments have maintained such a system for a long time. By formal decree which has been in continuous operation for more than two centuries, England has given the executive authorities power to formulate financial proposals. The Commons have the right to reject or reduce expenditures, but owing to the strict party system it is seldom that the estimates of the ministry are modified to any appreciable extent.

In Canada the British North America Act of 1867 makes it unlawful for the House of Commons to pass any appropriation bill that has not been previously submitted by the governor-general. There are similar provisions of this also in the constitution of the commonwealth of Australia. Italy and France base their public finances on a budgetary system ; but there is not so great adherence in these countries to executive estimates by the legislative bodies as there is in the British Empire. In a constitutional monarchy like Japan the budget system prevails, and owing to executive power and influence financial estimates are approved by the legislative body without great modification.

While it is not likely that the new executive budget system of the United States will become so completely the controlling factor in financial legislation, it does promise to exert an important influence on the expenditures. Experience has taught that it is not desirable to give to elective legislative bodies full and unguided control in formulating and approving financial expenditures. Economy and efficiency are better secured by dividing this responsibility between executive and legislative bodies.

When a budget has been formulated and funds appropriated the final step is to safeguard the expenditure to prevent misappropriation of funds. This involves a definite system of auditing, control, and record.

QUESTIONS

1. What is the economic importance of a public financial system based on sound principles of governmental policy?
2. What is a budget? Is there a budget-making body in your state? Explain its organization and functions.
3. What reason can you assign for tardiness of the United States in establishing a budget system? Why may the budget system in the United States not prove as effective as in England and Italy?
4. How does a nation safeguard expenditures of its public funds?
5. Compare and contrast the public accounting systems of England and the United States.

CONCLUSION

The sources and amounts of public expenditures present one of the most important applications of economic theory. Public outlay is one of the aspects of the consumption of wealth. A sound theory of economic consumption is essential to an equitable policy of public finance. In the formulation of an equitable and adequate financial policy there are several points of analogy and of contrast between state organization and the individual. The individual as a business unit of society, and the state as the aggregate business unit of society, have sources of receipts and incur obligations requiring expenditures. Each should endeavor to obtain the best results with the least expenditure. On the success of their efforts depends whether wealth is being accumulated or debts incurred. Both the state and the individual must safeguard their transactions by adequate accounting systems as a means of recording and checking financial operations.

There are, however, important contrasts between the economic aspects of private business and public finance. The most obvious of these is the nature of the enterprise. The individual or private association is impelled by motives of

private gain, while the state action finds its incentive in the protection of society against foreign invasion or internal disorder and in the promotion of those influences that advance civilization. The economic concern of the private enterprise, therefore, is an efficient organization and conservation of resources, while that of the public enterprise is the efficient expenditure of public funds.

Finally, private enterprise differs from public enterprise in the test of results. The test of private economy is the amount of profits that accrue to the business. The test of public economy is how it secures the general welfare of the people.

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CHAPTER XX

PROPOSED ECONOMIC AND SOCIAL REFORM

Economic discussions in previous chapters may be said to have centered around the wealth-getting and wealth-using vocations of man. Little has been said except by inference about social justice in the distribution of wealth and income, but it is a well-known fact that inequalities exist with reference to wealth and income. We often observe hard-working poor men and idle rich men living in the same community. While there is general unanimity of opinion that wealth is not equitably distributed, there is the greatest diversity of opinion as to how to secure a just distribution of wealth.

It may be possible to agree even as to the principle that should determine the distribution of property and still differ greatly as to the best method of applying this principle. Perhaps most of us would be inclined to agree with Professor Carver that a distribution should be determined on the basis of the contribution of worth, usefulness, or service.¹ The question then arises, How nearly does the present system of distribution conform to that principle or to what extent does it violate it? The latter part of this question is the one that concerns the social reformer. Some of the most important proposals that have been made for the equitable distribution of wealth will be described briefly.

SECTION I. COMMUNISM

Communism is one of the proposals for the accomplishment of this purpose. Communism may be defined as a form of

¹ *Essays in Social Justice* (1915), chap. vi, p. 171.

social organization in which all the processes of production and distribution are conducted as community enterprises and all producers' and consumers' goods are owned and controlled by the community. Communism differs from socialism in that the latter proposes that the community shall own and control production, while consumption shall be under private control.

A completely communistic society would be one in which all the property of the society, including land, factories, and homes, was held in common by all the members of the community. The ideal family may be regarded in a sense as a communistic group, for the property is held and enjoyed by the members in common.

Communistic schemes have been favorite themes of dreamers throughout history. Some of these present very attractive pictures of a society where property will be distributed on the perfect basis of social justice. Plato's "Republic," Thomas More's "Utopia," Francis Bacon's "The New Atlantis," and Campanella's "The City of the Sun" are notable literary examples of communistic dreams in which ideal societies have been described. More recently Edward Bellamy's "Looking Backward" is a popular literary production that deals with the same theme.

It is not surprising that these utopian dreams have inspired various groups to undertake to establish communities and conditions that would safeguard the membership from the rivalries incident to the accumulation of private property. We are told in the Acts of the Apostles that the early Christians maintained a common fund for the benefit of impecunious members. Some have contended that this was a typical and early example of a communistic society. But the circumstances indicate that this was merely a convenient arrangement on the part of this group rather than a conscious scheme of social organization. History points to other examples of

social organization that seem to take the form of communistic societies. The Spartans, according to Plutarch's "Life of Lycurgus," organized their military camps on a communistic basis. The monasteries of the Middle Ages are often referred to as illustrations of communistic life. But it should be recalled that the monks practiced celibacy, which prevented the continuity of community life and gave it a characteristic that could not have been a normal example of communistic endeavor. It should be recalled also that communistic life was designed to promote spirituality rather than to foster industrial life.

Many of the modern communistic organizations are fostered by religious sects. On the whole, the religious communistic communities have been longer-lived than the nonreligious societies.¹ The nonreligious societies have been very unsuccessful. The followers of Robert Owen, the great English philanthropist, and of Fourier, a French communist, have made many efforts to apply the teachings of these men in communistic enterprises; but most of them have been hopeless failures. Religious zeal has been a more enduring influence than economic interest in communities of this kind. The religious communities, as a rule, have also had the advantage of homogeneous elements, while those composing the economic and political groups have been more heterogeneous. This has been an important factor in determining the relative success or failure in these communistic communities.

There is little to encourage one to believe that communism offers the solution to the problems of social and economic justice. Professor Carver says:

To an impartial observer it looks as though communism might work very well if people were built on a communistic plan. If they

¹ W. A. Hinds, in his "American Communities" (1908), has presented a good classification and outline of communistic communities in this country.

have a passion for communism, or a powerful religious emotion which will overcome their individualistic and particularistic tendencies, they may live together peaceably under communism. Unless they are inspired with religious zeal or a genuine passion for communism, it seems as though the natural individuality, not to say the contrariness, of human nature would continue to break up all communistic societies in the future as it has in the past.¹

QUESTIONS

1. Define communism. How does it differ from socialism?
2. Give the principal characteristics of one of the communistic communities described by one of the literary writers referred to in the text.
3. Give two or more historical examples of communistic enterprises and describe one of them.
4. Classify communistic organizations.
5. Which type of communistic organization has been more successful? Why?

SECTION 2. SOCIALISM

Socialism has been one of the answers given as to the most equitable way of eliminating inequality in the distribution of wealth and income. The term is difficult to define, as very few of those who use the term have the same conception of its meaning.² But for purposes of this discussion socialism may be defined as a theory that the community or government should own, operate, and distribute all the productive resources of the community and restrict private ownership to articles of consumption. The productive resources include land and capital — farms, mines, forests, factories, railroads, and mercantile establishments. Socialism contemplates that most if not all individuals would be in the employ of the community or the government. This would eliminate the competitive aspects of production and distribution, since property could not be utilized for private gain.

¹ Carver, *Principles of Political Economy*, chap. xlv, p. 539.

² See page 302 for doctrines held in common by all socialists.

Socialism is usually regarded as the antithesis of capitalism. Capitalism may be said to be that form of industrial organization in which the means of production, primarily the agencies of production, are in the control of private persons and operated for individual profit. Under socialism, in contrast with capitalism, the means of production are controlled by the collective membership of the community. As capitalism is largely concerned with rent, interest, and profits, socialism is designed to conserve these economic factors to the community.

Modern socialism, as conceived and formulated by Karl Marx, affirms that history is merely an account of class struggles. The present form of this conflict is a struggle between capital and manual labor. The cause of this struggle is traceable to the fact that capitalists are continually exploiting and oppressing the laborers, or proletarians. According to Marxian socialism, labor is the sole factor in the production of wealth, and under present conditions wealth is being appropriated by those who do not contribute to its production. Socialists, therefore, would abolish private property, eliminate the capitalistic class, and secure to labor the full fruits of its efforts.

Socialism has been attacked at many vulnerable points. Boris Brasol declares that the socialist critics make a purely negative attack upon capitalism and the institutions based upon private property rights. Socialistic criticism of the present industrial order shows us *what would not be permitted in the future socialist state*. "Thus we know that private property should not exist; religion, if possible, should be eliminated; various legal institutions should be abolished; the right of a man to leave, after his death, his savings to his family should by no means be tolerated; the law of copyright should be banished once and forever; etc."¹

¹ Boris Brasol, *Socialism vs. Civilization*, chap. i, p. 51.

This writer also attacked the socialist theory on the grounds that "modern socialism has no program for the future. No constructive plan whatsoever has been developed as yet by the leaders of the various socialistic factions."¹

"Socialism," says W. H. Mallock, "has produced resolutions at endless public meetings; it has produced discontent and strikes; it has hampered production constantly. But socialism has never inaugurated an improved chemical process; it has never bridged an estuary or built an ocean liner; it has never produced or cheapened so much as a lamp or frying-pan."²

This statement is only partially true today. The course of political events in Europe since 1917 has transformed socialistic theory into a few practical experiments on a large scale. The most notable of these experiments is that of Russia. The socialist has an excellent opportunity to prove that theory to be sound and practicable. The Bolshevik régime, however, at the present time gives little promise of proving the success of a socialistic state on a large plan.

Opponents of socialism freely admit that our present system of distribution is imperfect. The defenders of capitalistic organization contend, however, that social justice is possible without socialism. They insist that all honest capitalists are the natural allies of honest labor. The class struggle is not one of capitalists against laborers but of dishonest and unfair capitalists against laborers. The solution, therefore, is not the destruction of private property and the capitalistic class, but the elimination of the dishonest and unfair elements in the capitalistic class.

The defenders of the present system go further and direct attention to the achievements of capitalism. They contend that capital has been responsible for the cheapening of

¹ Boris Brasol, *Socialism vs. Civilization*, chap. i, p. 55.

² W. H. Mallock, *A Critical Examination of Socialism*, p. 4.

production and the accumulation of wealth, the diversification of consumption and liberty of movement in contrast with the restriction of past ages. And finally, capitalism has been responsible for promoting education and advancing the cause of science.

But the advocates of socialism and the defenders of capitalism have at least one thing in common. If they are sincere, they must recognize that the present system of distribution is defective and that society needs to devise a better method than we now have of securing social justice to the several elements in our population.

QUESTIONS

1. "Socialism is coercive coöperation in production." Explain the meaning of this sentence.
2. Socialism claims that labor produces all wealth. Is this correct? Why?
3. Explain the strong and weak points in the arguments for socialism; the strong and weak points in the arguments for capitalism.
4. Explain the phrase "The socialization of capital."

SECTION 3. ANARCHISM

Anarchism is another proposal that has been submitted as a solution for the economic and social problems of our present social order. Anarchism differs from communism and socialism in several important respects. Philosophical anarchism is diametrically opposite to communism. Anarchism implies the absence of all restraint with reference to governmental action. Communism seeks its fundamental justification as a result of the present economic situation, while anarchism is essentially defended on the ground that it restores the liberty to the individual that modern governments have denied. In practice the distinction between anarchism and communism is not so clearly marked. There are groups

that call themselves Communist-Anarchists. Those who so designate themselves have in mind a social organization based upon the economic coöperation of members of the groups, but in their relation to each other they would maintain purely voluntary arrangements for social intercourse and the exchange of products.

Anarchism differs radically from socialism in that the former proposes to do away with all authority or control of one person or group of persons by another, while the latter proposes to enlarge the power and functions of governmental control. Anarchism implies the complete elimination of military organization or police power of any kind. The only thing that anarchism and socialism have in common is that the underlying philosophy of each is based on a revolt against private property and capitalistic control of one group over another. The anarchist is inclined to think that the socialist is a half-anarchist because he opposes capitalistic control, but does not go far enough to oppose all the forms of authority of one group over another, including political action based on legal authority.

The philosophical argument for anarchism is based on the supposition that if all the individuals composing a society were highly developed morally, each individual would voluntarily do those things that were not only for his own best interest but also for the best interest of his associates. Therefore, all that is necessary is to bring about this standard of moral obligation. Then it would be unnecessary to use authority or any form of compulsion or control.

There are others who defend anarchism on the ground that restraint and convention retard individual development. They are opposed to all religious forms and moral standards as inventions of an artificial society to check or restrain the natural aptitudes of the individual. They are opposed to police power, church organizations, and economic adjustments

because they see in them the efforts of social classes to enforce their views or will upon other persons.

There are some advocates of anarchism who regard patriotism as a vice. They justify this belief on the ground that patriotism teaches that the individual should care more for his fellow citizens than for citizens of foreign countries. They regard this as a restriction of the humanitarian spirit and an artificial tendency to restrict one's sympathies and narrow one's view. While this is the argument that is offered for opposition to patriotism, there is a more logical justification for this view from the standpoint of the anarchist. If government is to be abolished, there is no justification for patriotic sentiment. Therefore, since patriotism is a product of a sense of nationality and loyalty to one's governmental institutions, it would be illogical for one who was opposed to the existence of a state to favor a sentiment of patriotism.

Anarchism is one of the idealistic dreams that have little substance to support them. There is nothing to indicate that human nature is likely to undergo such a change, or that the standards of ethics are to become so universally high as to justify the belief that any society will be able to throw off the restraints which have been imposed in the interest of social order and economic advancement. On the other hand, with the increasing complexity in the social order, instead of the gradual elimination of legal restraints the number of legal restrictions has been increasing at a rapid rate in recent times. Laws for the protection of property rights and legal safeguards for the protection of life have multiplied rapidly in all the civilized countries of the world. This tendency does not imply that humanity is becoming more depraved or more irresponsible, but on the other hand it indicates that the increasing complexity of social organization, due to the enormous increase in wealth, the multiplication of inventions, and the great extension of our transportation and communication

systems, has given us new justification for legal restraints and agencies for social control.

QUESTIONS

1. Carefully distinguish between anarchism, socialism, and communism.
2. There are those who claim that we have too many laws. Is this opinion justified by the facts? Explain.
3. Can you conceive of anarchism solving the problem of social justice in the distribution of property?
4. Friedrich Nietzsche held that religion and morality are the inventions of weaklings. What could he mean by such a theory?
5. Can you conceive of a human society so harmonious as to make all forms of legal restraint unnecessary?

SECTION 4. THE SINGLE TAX

A proposal that has many adherents in this and other countries is that of the single tax. By a single tax is meant a fiscal policy for raising all the public revenue by a single tax on land values. A single tax is not to be confused with a tax on real estate. Land value may be defined as the value of the land, exclusive of all improvements, such as buildings and fences. In other words, the single tax excludes everything except the value of land as determined by its location and fertility.

The first advocates of the single tax were the physiocrats, who were a group of French economists of the seventeenth century. These economists held the view that land was the source of all wealth, and that the rent of land was the only really surplus wealth which the community could produce. Based on this theory, rent was an expression of nature's bounty. This theory caused them to advocate a tax to be paid out of rent only. There was no use, according to this theory, in taxing the value of the products of industry or labor, for these were not sources of surplus out of which the state could secure its revenue. Since every tax must be shifted from one

to another till it reached the landowner, who, alone, had a surplus in the form of rent, it was just as well to tax him at once instead of trying to shift the tax to other groups of producers.

The single tax in its modern form was advocated by the late Henry George in his book published under the title of "Progress and Poverty." This book attracted widespread attention soon after its publication and is largely responsible for the rapid spread of the single-tax idea. While the doctrines of George have undergone some refinements, the current views on the subject are in general those which he advocated.

It should be recalled that a land tax is not necessarily a single tax. Land has been subject to taxation under all systems of government in modern times. One may favor the increase of land taxation and also advocate other forms of taxation, such as an income tax, an inheritance tax, and a sales tax, without favoring a *single* tax. The fact is that most people favor a land tax, while, relatively speaking, only a few favor land as the only source of taxation.

The arguments for the single tax are usually justified on the grounds of social and economic reform rather than that of a fiscal policy. These arguments may be summarized as follows:

1. In the first place, the landowner who receives rent creates no values of his own but merely reaps the benefits of the value created by society. In other words, a man who purchases a vacant lot in a city and erects thereon a residence or business house secures a rent that is determined by the growth of the city or town, which is not the result of his own productive powers.

2. In the second place, the view is held that land is often purchased and held out of use for speculative purposes by those who realize that community development will increase

the value of the property. In the meantime the land often remains undeveloped when the interest of the community requires that it should be utilized for economic or social purposes.

3. In the third place, the advocates of the single tax allege that a single tax on the value of land and the elimination of taxes on the other forms of property would encourage the erection of buildings or other improvements on the property, which is definitely required in the interest of society. It is contended that under our present taxing system the farmer or business man who would make the wisest utilization of his land is penalized for his efforts to improve it.

4. A fourth argument is sometimes presented that many landowners depend entirely on the "unearned increment" to enable them to live in idleness instead of by doing productive work. It is contended that this results in a loss of productive power to the community. If the rent of land was absorbed in taxes, all this class of nonproducers would be compelled to go to work, and the community would gain by this addition to its productive force.

Henry George was firmly convinced that the taxation of land values, exclusive of improvements, would be a sure means of abolishing involuntary poverty and the greed, intemperance, and vice which spring from poverty and the dread of it. The theory of the single tax appears very simple, but the actual application of the principles underlying it to actual conditions presents many difficulties. In the first place, it is difficult to conceive how economic rent on agricultural land could be separated from the value of the improvements on the land. In cities it is comparatively easy to separate the economic rent from the improvements. In fact, in some of our cities the single tax has been applied with success. There is another objection to the theory of the single tax that deserves consideration. The appropriation of all rent by the

government would result in great injustice and probably retard rather than promote land development, especially agricultural lands. Single tax has made little headway in agricultural communities. It is likely that the single-tax principle will be applied in an increasing number of cities in a modified form. But as a general taxing policy of the state and nation, there is little to indicate that it will gain wide acceptance and application in the near future.

QUESTIONS

1. What two purposes of taxation are illustrated by the single tax?
2. Would the application of the single tax as a state policy result in a better distribution of private property?
3. What effect would the adoption of the single tax as a state policy have upon private property in land?
4. Why might the single-tax principle work better in cities than in the country?
5. What is the difference between a property tax and a single tax? between a real-estate tax and a single tax?

CONCLUSION

The advocates of communism, socialism, and anarchism as a rule have sought the betterment of human society. It is only just to admit that many of those who have held the various views connected with one or more of these theories have sought to improve the economic conditions of the working classes and to further the equitable distribution of wealth and income. It should be admitted freely that some of these persons have contributed to better economic conditions and a more desirable social situation. But it is well to remind ourselves from time to time that evolution and not revolution is the best way to secure those social and economic adjustments necessary to the public welfare. All progress, according to Sir Henry Maine, is made possible by a gradual change from

status to contract. Most of the important adjustments that contribute to human welfare are the result of evolution and not revolution. We are trying out new experiments and utilizing our energies in connection with new experiences. Some of these are profitable, while others may prove to be harmful. But as a result of the ceaseless experimentations in all the phases of human endeavor a net result is progress — an increase in the utilization of our energies in the interest of the public welfare and the orderly adjustment of our social and economic relations as a means of improving human relations and promoting human happiness.

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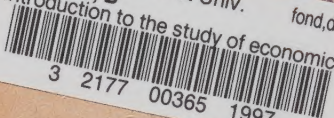
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